

2024 Annual Groundwater Monitoring and Corrective Action Report

Burlington Generating Station
Burlington, Iowa

Prepared for:

Alliant Energy



SCS ENGINEERS

25224066.00 | January 31, 2025

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OVERVIEW OF CURRENT STATUS

Burlington Generating Station, Impoundments 2024 Annual Report

In accordance with §257.90(e)(6), this section at the beginning of the annual report provides an overview of the current status of groundwater monitoring and corrective action programs for the coal combustion residual (CCR) unit. The groundwater monitoring system at the Burlington Generating Station (BGS) impoundments is a multi-unit system. Supporting information is provided in the text of the annual report.

Category	Rule Requirement	Site Status
Monitoring Status – Start of Year	(i) At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95;	Assessment
Monitoring Status – End of Year	(ii) At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95;	Assessment
Statistically Significant Increases (SSIs)	(iii) If it was determined that there was an SSI over background for one or more constituents listed in Appendix III to this part pursuant to §257.94(e):	
	(A) Identify those constituents listed in Appendix III to this part and the names of the monitoring wells associated with such an increase; and	<p>SSIs initially determined on January 15, 2018, based on October 2017 monitoring results. In October 2023 and April 2024, SSIs for compliance wells at the waste boundary included the following; see Table 5A and 5B for complete results.</p> <p><u>October 2023</u> Boron: MW-301, MW-303, MW-304, MW-308, MW-309 Calcium: MW-304, MW-309 Field pH: MW-306, MW-307 Sulfate: MW-301, MW-305, MW-308 Total Dissolved Solids (TDS): MW-301, MW-308</p> <p><u>April 2024</u> Boron: MW-301, MW-303, MW-304, MW-308, MW-309 Field pH: MW-306, MW-307 Sulfate: MW-301, MW-308 TDS: MW-301, MW-308</p>

Category	Rule Requirement	Site Status
	(B) Provide the date when the assessment monitoring program was initiated for the CCR unit.	July 16, 2018
Statistically Significant Levels (SSL) Above Groundwater Protection Standard (GPS)	(iv) If it was determined that there was an SSL above the GPS for one or more constituents listed in Appendix IV to this part pursuant to §257.95(g) include all of the following:	
	(A) Identify those constituents listed in Appendix IV to this part and the names of the monitoring wells associated with such an increase;	<p>Lithium: Initially determined to be at SSL above GPS in January 2019 at monitoring wells MW-302, MW-303, MW-304, MW-306, MW-307, and MW-308. In October 2023 and April 2024 events, compliance wells with concentrations determined to be at SSL above the GPS as follows:</p> <p><u>October 2023</u> MW-302, MW-304, MW-307, MW-308</p> <p><u>April 2024</u> MW-302, MW-304, MW-307, MW-308</p> <p>Molybdenum: Initially determined to be at SSL above GPS in January 2019 at monitoring wells MW-301, MW-302, MW-304, MW-307, and MW-308. In October 2023 and April 2024 events, compliance wells with concentrations determined to be at SSL above the GPS as follows:</p> <p><u>October 2023</u> None</p> <p><u>April 2024</u> None</p>
	(B) Provide the date when the assessment of corrective measures was initiated for the CCR unit;	April 15, 2019
	(C) Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and	<p>October 14, 2020</p> <p>A public meeting was held prior to remedy selection on July 26, 2023.</p>
(D) Provide the date when the assessment of corrective measures was completed for the CCR unit.	<p>September 12, 2019 - Original Assessment of Corrective Measures (ACM)</p> <p>November 25, 2020 – Addendum No. 1 to ACM</p>	

Category	Rule Requirement	Site Status
Selection of Remedy	(v) Whether a remedy was selected pursuant to §257.97 during the current annual reporting period, and if so, the date of remedy selection; and	Selection of remedy was complete as of December 31, 2023.
Corrective Action	(vi) Whether remedial activities were initiated or are ongoing pursuant to §257.98 during the current annual reporting period.	Remedial activities included implementing the corrective action groundwater monitoring program and conducting pumping test and leach testing activities to support corrective action design.

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1.0 INTRODUCTION

This 2024 Annual Groundwater Monitoring and Corrective Action Report was prepared to support compliance with the groundwater monitoring requirements of the Coal Combustion Residuals (CCR) Rule (40 Code of Federal Regulations [CFR] 257.50-107). Specifically, this report was prepared to fulfill the requirements of 40 CFR 257.90(e). The applicable sections of the Rule are provided below in italics, followed by applicable information relative to the 2024 Annual Groundwater Monitoring and Corrective Action Report for the CCR Units. The Burlington Generating Station (BGS) site location is shown on **Figure 1**.

This report covers the period of groundwater monitoring from January 1, 2024, through December 31, 2024.

The groundwater monitoring system at the BGS impoundments is a multi-unit system. The BGS facility includes four existing CCR units:

- BGS Ash Seal Pond (existing CCR surface impoundment)
- BGS Main Ash Pond (existing CCR surface impoundment)
- BGS Economizer Ash Pond (existing CCR surface impoundment)
- BGS Upper Ash Pond (existing CCR surface impoundment)

The multi-unit system is designed to detect monitored constituents at the waste boundary of the facility as required by 40 CFR 257.91(d). The groundwater monitoring system currently consists of 2 upgradient background monitoring wells, 9 downgradient compliance wells at the waste boundary, 2 supplemental background wells, and 7 additional downgradient delineation wells (**Figure 2** and **Table 1**).

In 2024, closure activities completed included restoration of the final cover cap due to soil boring installation, and installation of a gravel ramp onto the closure area for resurfacing of the Economizer Ash Pond Closure Area.

2.0 BACKGROUND

To provide context for the annual report, the following background information is provided in this section of the report, prior to the annual report sections:

- Geologic and hydrogeologic setting
- CCR Rule monitoring system

2.1 GEOLOGIC AND HYDROGEOLOGIC SETTING

2.1.1 Regional Information

The uppermost geologic formation beneath the Burlington plant that meets the definition of the “uppermost aquifer,” as defined under 40 CFR 257.53, is the surficial alluvial aquifer. The alluvial aquifer is comprised of Mississippi River valley clay, silt, sand, and sand and gravel deposits. This deposit is present along the edges of the entire Mississippi River valley in southeastern Iowa. A map of the regional glacial geology in the area is included in **Appendix A**.

Regionally, the uppermost bedrock is Mississippian Limestone. A bedrock geology map of the area is located in **Appendix A**. The limestone bedrock is also an aquifer and is likely hydraulically connected to the alluvial aquifer above. Locally, the Mississippian Limestone is absent in some areas due to erosion, and where it is absent the uppermost bedrock is the Devonian-Mississippian Aquaclude (shale, siltstone, and mudstone).

The regional groundwater flow direction is generally east, from the bedrock uplands west of the site toward the Mississippi River. A map of regional flow in the Mississippian aquifer is included in **Appendix A**.

2.1.2 Site Information

Monitoring wells MW-301 through MW-311 were installed in December 2015 through March 2016 as the initial monitoring system for the CCR units. The wells were installed to intersect the surficial alluvium aquifer at the site. The unconsolidated material at these well locations is generally clay and silt to approximately 20 feet below ground surface, and these fine-grained sediments are underlain by sand or silty sand. The total boring depths were between 24 and 34 feet, and bedrock was not encountered in any boring. Boring logs, well construction, and development documentation for MW-301 through MW-311 are included in **Appendix B**.

Monitoring wells MW-312 and MW-313 were installed in May 2019 as delineation wells to assess the downgradient extent of groundwater impacts. Both wells were installed near the Mississippi River. Both monitoring wells are screened near the top of the alluvial sands, below a confining clay layer. The total boring depths were 26 feet at MW-312 and 32 feet at MW-313. Boring logs, well construction, and development documentation for MW-312 and MW-313 are included in **Appendix B**.

Monitoring wells MW-302A, MW-307A, and MW-313A were installed in June and July 2020 as additional delineation wells to assess the downgradient vertical extent of groundwater impacts. They were installed as nested wells with MW-302, MW-307, and MW-313. Monitoring well MW-310A was installed in nest with upgradient well MW-310 to provide additional background groundwater information. The boring for well MW-310A encountered bedrock at 25 feet and the well is screened in Mississippian mudstone. The three downgradient delineation wells are screened in the alluvial sands. Total boring depths ranged from 50 to 62 feet. Boring logs, well construction, and development documentation for MW-302A, MW-307A, MW-310A, and MW-313A are included in **Appendix B**.

Monitoring wells MW-307B and MW-313B were installed in May 2021 as additional delineation wells to provide information on vertical groundwater flow and the vertical distribution of target groundwater quality parameters. Each new well was installed adjacent to pre-existing well pairs (MW-307/MW-307A and MW-313/MW-313A). Total boring depths ranged from 75 to 85 feet. Boring logs, well construction, and development documentation for MW-307B and MW-313B are included in **Appendix B**.

Monitoring well MW-314 was installed in February 2022 as a supplemental background monitoring well to evaluate background conditions in the shallow groundwater at a location side-gradient from the CCR units, but in the same hydrogeologic environment as the compliance and delineation wells. Total boring depth of MW-314 is 24 feet. Boring log, well construction, and development documentation for MW-314 are included in **Appendix B**.

Shallow groundwater at the site generally flows to the east and southeast, toward the Mississippi River. The shallow potentiometric surface elevations and groundwater flow direction in April 2024

are shown on **Figure 3**. In April 2024, shallow groundwater flow was to the southeast, which is consistent with historical observations at the site. The shallow groundwater flow direction during October 2024 was also to the east/southeast and is shown on **Figure 4**.

The deep potentiometric surface elevations and groundwater flow directions in April and October 2024 are shown on **Figures 5** and **6**, respectively. The April and October 2024 deep potentiometric surface show a flow direction to the southeast, which is consistent with historical observations.

The groundwater elevation data for the CCR monitoring wells are provided in **Table 3**. Estimated horizontal gradients and flow velocities are provided in **Table 4A**. Calculated vertical gradients for the nested wells are provided in **Table 4B**.

2.2 CCR RULE MONITORING SYSTEM

The groundwater monitoring system initially established in accordance with the CCR Rule consists of two upgradient (background) monitoring wells and nine downgradient monitoring wells. The background wells include MW-310 and MW-311. The nine downgradient wells include MW-301, MW-302, MW-303, MW-304, MW-305, MW-306, MW-307, MW-308, and MW-309. The CCR Rule wells are installed in the upper portion of the alluvial aquifer. Well depths range from approximately 19 to 35 feet, measured from the top of the well casing.

Temporary monitoring wells TW-101 and TW-102 were installed during the dewatering activities on site and used for groundwater elevation monitoring only. They are not part of the CCR rule monitoring system.

As described in **Section 2.1.2**, two supplemental background wells and nine downgradient delineation wells have been added to support the assessment of the nature and extent of lithium and molybdenum impacts in groundwater.

Although piezometer MW-310A is located upgradient of the CCR units, this supplemental background well has not been used in the statistical evaluation of background conditions because it is not installed in the same hydrostratigraphic unit as the downgradient wells. MW-310A is installed in a low permeability mudstone bedrock, and the other monitoring wells are installed in the overlying alluvial aquifer.

Supplemental background monitoring well MW-314 is located approximately 3,300 feet south of the CCR units and is not currently being used in the statistical analysis of background conditions.

3.0 §257.90(E) ANNUAL REPORT REQUIREMENTS

Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For CCR management units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31, 2029, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed,

describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by §257.105(h)(1). At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

3.1 §257.90(e)(1) Site Map

A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

A map of the site location is provided on **Figure 1**. A map with an aerial image showing the CCR units and all background (or upgradient) and downgradient monitoring wells with identification numbers for the groundwater monitoring program is provided as **Figure 2**.

3.2 §257.90(E)(2) MONITORING SYSTEM CHANGES

Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

There were no changes made to the monitoring system in 2024.

3.3 §257.90(E)(3) SUMMARY OF SAMPLING EVENTS

In addition to all the monitoring data obtained under §§257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

Two groundwater sampling events were completed in 2024. The two semiannual sampling events were completed in April 2024 and October 2024 as required by the assessment monitoring program. A summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection or assessment monitoring programs is included in **Table 2**.

Groundwater samples collected in the April and October 2024 sampling events were analyzed for both Appendix III and Appendix IV constituents. Samples from the compliance wells at the waste boundary were analyzed for the full list of Appendix III and Appendix IV constituents. Samples from the delineation wells were analyzed for select Appendix IV parameters. Supplemental groundwater quality parameters were included in the monitoring program in 2024 to support the remedial design process.

The validation and evaluation of the October 2023 monitoring event data were completed and transmitted to IPL on February 27, 2024. The April 2024 monitoring event validation and evaluation were transmitted on August 28, 2024. The validation and evaluation of the October 2024 monitoring event data were in progress at the end of 2024 and will be transmitted to IPL in 2025; therefore, the October 2024 monitoring results will be included in the 2025 annual report. The October 2024 groundwater elevation data are included in this report.

The analytical results for the October 2023 and April 2024 monitoring events are included in **Table 5A** and **5B**, respectively. Field parameter results for the October 2023 and April 2024 sampling events are provided in **Table 6**. The analytical reports for the October 2023 and April 2024 monitoring events are provided in **Appendix C**. Historical results for each monitoring well through April 2024 are summarized in **Appendix D**.

3.4 §257.90(E)(4) MONITORING TRANSITION NARRATIVE

A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels);

The Corrective Action Groundwater Monitoring Program was established on March 29, 2024. In accordance with the program, assessment monitoring continued in 2024.

An Assessment of Corrective Measures (ACM) was initiated for the BGS CCR Units on April 15, 2019. The ACM was completed on September 12, 2019, and an addendum to the ACM was completed on November 25, 2020. The ACM was initiated in response to the detection of lithium and molybdenum at a statistically significant level (SSL) exceeding the Groundwater Protection Standards (GPS). Assessment monitoring continued during the ACM and will continue during implementation of the corrective action program.

The Selection of Remedy (SOR) Report was completed on December 31, 2023. The SOR Report identified the following remedy which meets the criteria established in the CCR Rule:

- Stopping all CCR and wastewater discharges to the BGS ash ponds.
- Closing the pond with CCR in place according to 40 CFR 257.102(d).
- Implementing groundwater extraction with treatment for molybdenum and lithium.

Ceasing of wastewater discharges was completed as of October 2022. Consolidation and covering of CCR material onsite continued in 2024 as described in the BGS Written Closure Plan updated June 13, 2024. Work to implement a groundwater extraction and treatment system continued in 2024 as described in this report.

In accordance with the Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at Resource Conservation and Recovery Act (RCRA) Facilities (U.S. Environmental Protection Agency [U.S. EPA], 2009), the comparison of assessment monitoring results to the GPS was based on the lower confidence limit (LCL) for the arithmetic mean. The LCL evaluation was completed for the Appendix IV parameters that have been detected at a concentration exceeding the GPS in at least one sample result since assessment monitoring was initiated, which include arsenic, cobalt, lithium, molybdenum, and thallium. The LCLs were calculated with Sanitas™ using historical concentrations measured since assessment monitoring began in August 2018. The LCL evaluations completed in 2024 for the October 2023 and April 2024 events, are provided in **Appendix E**.

Based on the LCL evaluation, SSLs above the GPS were identified for the following parameters in compliance wells:

- Lithium: MW-302, MW-304, MW-307, MW-308

SSLs above the GPS have been identified previously for these parameters and wells. No SSLs above the GPS were identified for arsenic, cobalt, molybdenum, or thallium.

Because concentrations of arsenic in the upgradient background wells exceed the EPA's maximum contaminant level (MCL), the GPS for arsenic is established based on background conditions. Consistent with the single-sample GPS approach outlined in the Section 7.4 of the Unified Guidance, the GPS was established based on a background upper tolerance limit (UTL). To evaluate compliance with the background GPS, the LCL for the mean (or median if non-parametric) is compared to the background GPS. The original UTL calculation completed using Sanitas™ for the October 2021 monitoring event was included as an appendix to the 2022 Annual Groundwater and Corrective Action Report.

The comparison to background was based on a prediction limit approach, comparing the results to interwell upper prediction limits (UPLs) for Appendix III parameters and UTLs for Appendix IV parameters based on background monitoring results from the upgradient wells (MW-310 and MW-311). The interwell UPLs were most recently updated in August 2024 using background data collected through October 2023. The August 2024 interwell UPL and UTL update is included as **Appendix F**.

The Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities (U.S. EPA, 2009; Section 5.3.1) recommends periodic updating of background (i.e., UPLs and UTLs) for both intrawell and interwell analyses. For semiannual monitoring, an update interval of 2 to 3 years is recommended.

3.5 §257.90(E)(5) OTHER REQUIREMENTS

Other information required to be included in the annual report as specified in §§257.90 through 257.98.

Additional potentially applicable requirements for the annual report, and the location of the requirement within the Rule, are provided in the following sections. For each cited section of the Rule, the portion referencing the annual report requirement is provided below in italics, followed by applicable information relative to the 2024 Annual Groundwater Monitoring and Corrective Action Report.

3.5.1 §257.90(e) General Requirements

For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year.

Status of Groundwater Monitoring and Corrective Action Program. Following the Selection of Remedy Report publication (December 31, 2023), the groundwater monitoring program was updated to a corrective action groundwater monitoring program in a plan dated March 29, 2024. Other corrective action activities to support remedy design included a pumping test, leach testing, and base of ash borings with the closure areas to aid in the design of a full scale pumping and treat system.

Summary of Key Actions Completed:

Groundwater-Related Activities:

- Prepared 2023 Annual Groundwater Monitoring and Corrective Action Report (January 2024).

- Completed statistical evaluation of the October 2023 assessment monitoring event and prepared groundwater monitoring results letter (February 2024).
- Finalized Corrective Action Groundwater Monitoring Program, dated March 29, 2024.
- Completed two semiannual assessment monitoring events (April and October 2024).
- Completed statistical evaluation of the April 2024 assessment monitoring event and prepared a monitoring results letter (August 2024).
- Completed statistical update of the UPLs for Appendix III parameters and UTLs for Appendix IV parameters as part of the evaluation of the April 2024 monitoring results.
- Drilled four soil borings in January 2024 to investigate the elevation of the contact between the bottom of the ash in the closure area and native soil. Ash samples were collected from the lower portion of the borings for leach testing by Eurofins Laboratory. Groundwater samples were collected from upgradient wells (MW-310 and MW-311) for the leach testing.
- Installed pumping test wells (OW-1 and OW-2) in April 2024, and performed an aquifer step test.
- Evaluated results of aquifer step test including calculating time of removal, and determining next steps for full scale groundwater extraction and treatment system.

Closure-Related Activities:

- Restoration activities completed in 2024 included abandoning soil borings through the CCR materials, repairs to ruts made into the final cover caused by drilling and resurfacing of the Economizer Ash Pond Closure area.

Description of Any Problems Encountered:

- No problems were encountered during the 2024 semi-annual monitoring events.

Discussion of Actions to Resolve the Problems:

- Not applicable.

Projection of Key Activities for the Upcoming Year (2025):

- Complete statistical evaluation and determination of any SSLs exceeding the GPS for the October 2024 monitoring event and prepare groundwater monitoring results letter (February 2025).
- Complete statistical evaluation and determination of any SSLs exceeding the GPS for the April 2025 monitoring event and prepare groundwater monitoring results letter.
- Complete two semiannual assessment monitoring events (April and October 2025).
- Conduct a larger scale pumping test for remedy design in support of corrective action.

- Update conceptual site model based on additional findings during remedy design.
- Continue other design activities for the selected remedy.

3.5.2 §257.94(d) Alternative Detection Monitoring Frequency

The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer in the annual groundwater monitoring and corrective action report required by § 257.90(e).

Not applicable. BGS is no longer in the detection monitoring program.

3.5.3 §257.94(e)(2) Alternative Source Demonstration for Detection Monitoring

The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by §257.90(e), in addition to the certification by a qualified professional engineer.

Not applicable. BGS is no longer in the detection monitoring program.

3.5.4 §257.95(c) Alternative Assessment Monitoring Frequency

The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer in the annual groundwater monitoring and corrective action report required by §257.90(e).

Not applicable. Assessment monitoring has been initiated at the site but no alternative assessment monitoring frequency has been proposed at this time.

3.5.5 §257.95(d)(3) Assessment Monitoring Results and Standards

Include the recorded concentrations required by paragraph (d)(1) of this section, identify the background concentrations established under § 257.94(b), and identify the groundwater protection standards established under paragraph (d)(2) of this section in the annual groundwater monitoring and corrective action report required by §257.90(e).

The October 2023 assessment monitoring results, background UPLs, and GPSs established for BGS are provided in **Table 5A**. The April 2024 assessment monitoring results, background UPLs and UTLs, and GPSs established for BGS are provided in **Table 5B**. The laboratory reports are provided in **Appendix C**. Historical monitoring results are summarized in **Appendix D**.

Supplemental groundwater quality parameters were included in the monitoring program in 2024 to support the corrective action process. The results for the supplemental parameters are included in **Tables 5A and 5B** and in the laboratory reports in **Appendix C**.

3.5.6 §257.95(g)(3)(ii) Alternative Source Demonstration for Assessment Monitoring

The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by §257.90(e), in addition to the certification by a qualified professional engineer.

Not applicable. No alternative source demonstration evaluation for assessment monitoring was completed in 2024.

3.5.7 §257.96(a) Extension of Time for Corrective Measures Assessment

The assessment of corrective measures must be completed within 90 days, unless the owner or operator demonstrates the need for additional time to complete the assessment of corrective measure due to site-specific conditions or circumstances. The owner or operator must obtain a certification from a qualified professional engineer attesting that the demonstration is accurate. The 90-day deadline to complete the assessment of corrective measures may be extended for longer than 60 days. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by §257.90(e), in addition to the certification by a qualified professional engineer.

Not applicable. The ACM was initiated on April 15, 2019. The certification demonstrating the need for a 90-day deadline extension was completed on July 10, 2019, and was included in the 2019 annual groundwater monitoring and corrective action report. The ACM was completed on September 12, 2019. Addendum No. 1 to the ACM was completed on November 25, 2020. The Selection of Remedy Report was completed on December 31, 2023.

3.6 §257.90(E)(6) OVERVIEW

A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit.

The specific requirements for the overview under §257.90(e)(6) are listed and the information is provided at the beginning of this report, before the Table of Contents.

4.0 REFERENCES

SCS Engineers, Selection of Remedy, Burlington Generating Station, December 31, 2023.

U.S. Environmental Protection Agency (U.S. EPA), 2009, Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, EPA 530-R-09-007, March 2009.

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**Table 1. Groundwater Monitoring Well Network
Burlington Generating Station / SCS Engineers Project #25224066.00**

Monitoring Well	Location in Monitoring Network	Role in Monitoring Network
MW-301	Downgradient	Compliance
MW-302	Downgradient	Compliance
MW-302A	Downgradient, deeper	Delineation
MW-303	Downgradient	Compliance
MW-304	Downgradient	Compliance
MW-305	Downgradient	Compliance
MW-306	Downgradient	Compliance
MW-307	Downgradient	Compliance
MW-307A	Downgradient, deeper	Delineation
MW-307B	Downgradient, deeper	Delineation
MW-308	Downgradient	Compliance
MW-309	Downgradient	Compliance
MW-310	Upgradient	Background
MW-310A	Upgradient, deeper	Supplemental Background
MW-311	Upgradient	Background
MW-312	Downgradient	Delineation
MW-313	Downgradient	Delineation
MW-313A	Downgradient, deeper	Delineation
MW-313B	Downgradient, deeper	Delineation
MW-314	Sidegradient	Supplemental Background

Last revision by: NLB
Checked by: LH

Date: 11/21/2024
Date: 12/4/2024

**Table 2. CCR Rule Groundwater Samples Summary
Burlington Generating Station
SCS Engineers Project #25224066.00**

Sample Dates	Background Wells		Compliance Wells									Delineation Wells						Supplemental Background Wells		
	MW-310	MW-311	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309	MW-307A	MW-307B	MW-302A	MW-312	MW-313	MW-313A	MW-313B	MW-310A	MW-314
April 23-25, 2024	A	A	A	A	A	A	A	A	A	A	A	A-NE	A-NE	A-NE	A-NE	A-NE	A-NE	A-NE	A	A
October 22-23, 2024	A	A	A	A	A	A	A	A	A	A	A	A-NE	A-NE	A-NE	A-NE	A-NE	A-NE	A-NE	A	A
Total Samples	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Abbreviations:

A = Assessment Monitoring Program

A-S = Supplemental sampling event for Assessment Monitoring Program

A-NE = Assessment monitoring for nature and extent, wells sampled for select App IV and selection-of-remedy parameters

Last revision by: NLB Date: 11/21/2024
 Checked by: LH Date: 12/4/2024

Table 3. Groundwater Elevation Summary
Burlington Generating Station / SCS Engineers Project #25224066.00

Well Number	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A	MW-307B	MW-308	MW-309	MW-310	MW-310A	MW-311	MW-312	MW-313	MW-313A	MW-313B	MW-314
Top of Casing Elevation (feet amsl)	538.38	535.69	535.89	533.60	534.42	533.28	539.42	539.96	539.32	539.65	540.26	536.42	531.99	532.53	532.32	536.43	535.82	536.03	536.14	526.58
Screen Length (ft)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Total Depth (ft from top of casing)	31.90	29.95	62.55	28.59	25.27	29.43	36.91	31.64	65.03	83.00	33.37	27.31	18.76	48.8	22.63	27.70	32.97	63.38	72.0	25.47
Top of Well Screen Elevation (ft)	511.48	510.74	478.34	510.01	514.15	508.85	505.51	510.32	476.19	458.65	508.83	514.11	518.23	488.73	514.69	513.80	507.85	477.65	469.14	506.11
Measurement Date																				
April 20, 2016	522.63	521.91	NI	521.76	521.78	521.96	521.74	522.38	NI	NI	521.93	522.09	525.43	NI	523.72	NM	NM	NI	NI	NI
June 6 & 7, 2016	521.07	521.21	NI	521.26	521.28	521.48	521.43	521.75	NI	NI	521.43	521.39	524.13	NI	521.80	NM	NM	NI	NI	NI
August 16 & 17, 2016	521.81	521.35	NI	521.31	521.37	521.46	521.53	521.91	NI	NI	521.56	521.70	524.84	NI	522.92	NM	NM	NI	NI	NI
October 3, 2016	527.48	527.54	NI	527.57	527.57	527.71	527.67	527.81	NI	NI	527.62	527.57	527.58	NI	527.34	NM	NM	NI	NI	NI
January 9 & 10, 2017	525.38	525.50	NI	525.56	525.62	525.74	525.67	525.81	NI	NI	525.65	525.57	525.78	NI	525.16	NM	NM	NI	NI	NI
April 3 & 4, 2017	523.08	522.84	NI	522.81	522.87	523.03	523.07	523.14	NI	NI	523.07	523.10	525.52	NI	524.01	NM	NM	NI	NI	NI
June 12 & 13, 2017	523.21	522.84	NI	522.80	522.90	522.78	522.87	523.17	NI	NI	522.90	522.91	524.94	NI	523.55	NM	NM	NI	NI	NI
August 15 & 16, 2017	519.96	519.39	NI	519.30	519.23	519.93	519.82	520.16	NI	NI	519.80	519.93	523.89	NI	521.12	NM	NM	NI	NI	NI
October 16, 2017	522.13	522.20	NI	522.23	522.32	522.48	522.72	522.55	NI	NI	522.46	522.67	525.49	NI	523.44	NM	NM	NI	NI	NI
May 8 & 9, 2018	525.51	525.81	NI	525.80	525.85	526.06	526.00	526.06	NI	NI	525.62	525.54	525.79	NI	525.08	NM	NM	NI	NI	NI
August 13 & 14, 2018	520.19	519.87	NI	519.78	519.81	520.29	520.14	520.46	NI	NI	520.22	520.22	523.69	NI	521.06	NM	NM	NI	NI	NI
October 9 & 10, 2018	528.01	528.08	NI	528.78	528.82	528.97	528.95	529.08	NI	NI	528.98	528.93	529.00	NI	528.49	NM	NM	NI	NI	NI
March 11, 2019	523.38	522.83	NI	522.74	522.80	NM	523.21	523.49	NI	NI	523.13	NM	NM	NI	NM	NM	NM	NI	NI	NI
April 3, 2019	528.15	528.21	NI	528.22	528.27	528.36	528.40	528.63	NI	NI	528.39	528.40	528.62	NI	528.20	NM	NM	NI	NI	NI
June 6, 2019	530.70	531.02	NI	531.00	531.04	TOC	531.19	531.38	NI	NI	531.15	531.08	531.48	NI	531.07	531.08	531.05	NI	NI	NI
October 10 & 11, 2019	526.80	526.88	NI	526.87	526.97	527.03	527.22	527.45	NI	NI	527.08	527.02	526.25	NI	526.68	526.97	526.97	NI	NI	NI
June 2-4, 2020	523.94	523.98	NI	523.97	524.02	524.12	524.45	524.62	NI	NI	524.10	524.06	525.36	NI	524.05	524.05	524.02	NI	NI	NI
September 9, 2020	519.90	519.79	519.71	519.73	519.83	520.00	520.14	520.41	519.97	NI	520.11	520.13	524.13	509.16	520.87	519.85	519.83	519.76	NI	NI
October 14-16 & 19, 2020	519.26	518.94	518.79	518.78	518.69	519.00	519.05	519.33	519.00	NI	519.02	519.28	523.81	489.84	520.59	518.68	518.70	518.61	NI	NI
March 1-3, 2021	521.10	520.21	520.14	520.09	520.15	520.48	520.65	521.01	520.52	NI	520.70	520.75	--	487.06	522.89	520.12	520.18	520.02	NI	NI
April 19 - 20, 2021	522.87	522.27	522.25	522.13	522.24	522.31	522.52	522.89	522.39	NI	522.57	522.72	525.46	521.12	523.89	522.20	522.23	522.11	NI	NI
July 1, 2021	NM	NM	NM	NM	NM	NM	NM	NM	NM	520.12	NM	NM	NM	NM	NM	NM	NM	NM	519.51	NI
September 21-22, 2021	NM	NM	NM	NM	518.29	NM	NM	NM	NM	NM	NM	NM	524.42	NM	NM	NM	NM	NM	NM	NI
October 11-14, 2021	519.40	518.75	518.64	518.58	518.68	519.18	519.15	519.55	519.09	519.13	519.25	519.43	524.69	521.83	522.00	518.78	518.72	518.62	518.72	NI
February 22, 2022	NM	519.03	NM	NM	NM	NM	NM	519.74	519.32	519.37	NM	NM	NM	NM	NM	NM	518.91	518.81	518.88	NI
April 4-6, 2022	522.99	522.34	522.28	522.20	522.41	522.60	522.63	522.91	522.47	522.37	522.61	522.74	525.44	522.58	523.78	522.51	522.48	522.38	522.45	522.27
October 17, 2022	DRY	DRY	506.87	DRY	DRY	DRY	DRY	DRY	508.27	508.35	DRY	DRY	DRY	512.84	DRY	DRY	512.08	511.86	511.91	517.58
October 20, 2022	DRY	DRY	506.87	DRY	DRY	DRY	DRY	DRY	508.27	508.35	DRY	DRY	DRY	512.84	DRY	DRY	512.08	511.86	511.91	517.58
April 24-27, 2023	524.21	525.56	525.51	525.42	525.20	517.35	522.20	519.61	520.77	520.77	521.08	523.02	518.44	509.69	522.07	524.68	524.37	524.29	524.39	NM
July 31, 2023	518.30	518.26	518.20	518.15	518.20	518.16	518.16	518.37	519.70	518.25	518.38	518.34	520.39	517.83	518.63	518.13	518.19	518.08	518.14	518.31
August 1-3, 2023	518.33	518.19	518.09	517.91	518.19	518.03	518.07	518.04	519.42	518.20	518.22	518.22	520.29	490.83	518.28	517.93	518.09	518.00	518.01	518.28
October 2-5, 2023	518.33	518.19	518.12	518.06	518.08	518.00	518.13	518.30	519.61	518.14	520.25	518.42	520.39	517.75	518.68	518.03	518.18	518.05	518.12	518.02
April 23-25, 2024	521.23	520.85	520.78	520.89	520.90	520.96	520.89	521.08	522.38	520.96	521.36	521.18	523.93	521.84	522.23	520.93	520.87	520.87	520.92	520.95
October 22-23, 2024	518.38	517.99	517.97	518.16	518.27	518.30	518.42	518.80	520.05	518.57	518.65	518.30	522.94	521.18	519.64	518.15	518.12	518.20	518.24	518.18
Bottom of Well Elevation (ft)	506.48	505.74	473.34	505.01	509.15	503.85	500.01	505.32	471.19	453.65	503.83	509.11	513.23	483.73	509.69	508.73	502.85	472.65	464.14	501.11

Notes:

NM = not measured
 TOC = top of casing
 NI = not installed
 DRY = Well dry and elevation not measured

Created by: MDB
 Last revision by: KMV
 Checked by: BLR

Date: 6/15/2016
 Date: 10/28/2024
 Date: 10/29/2024

Table 4A. Horizontal Gradients and Flow Velocity Table
Burlington Generating Station / SCS Engineers Project #25224066.00
January - December 2024

Flow Path A - Shallow Potentiometric Surface						
Sampling Dates	h1 (ft)	h2 (ft)	Δl (ft)	Δh/Δl (ft/ft)	V (ft/d)	Direction
April 23 - 25, 2024	523.00	521.08	1212	0.0016	0.39	East-Southeast
October 22-23, 2024	520.00	518.80	790	0.0015	0.38	East-Southeast

Flow Path B - Deeper Potentiometric Surface						
Sampling Dates	h1 (ft)	h2 (ft)	Δl (ft)	Δh/Δl (ft/ft)	V (ft/d)	Direction
April 23 - 25, 2024	522.38	520.87	666	0.0023	0.56	Southeast
October 22-23, 2024	520.05	518.20	690	0.0027	0.67	Southeast

Well	K Values (cm/sec)	K Values (ft/d)
MW-301	1.6E-03	4.4
MW-302	2.9E-02	82
MW-302A	4.9E-02	140
MW-303	8.3E-03	24
MW-304	6.0E-02	171
MW-305	6.1E-02	173
MW-306	1.0E-01	295
MW-307	8.5E-03	24
MW-307A	4.1E-02	116
MW-307B	6.2E-02	175
MW-308	7.6E-02	215
MW-309	1.2E-02	34
MW-310	3.7E-02	104
MW-310A	1.49E-07	0
MW-311	9.1E-03	26
MW-312	6.6E-02	187
MW-313	1.1E-01	298
MW-313A	1.2E-01	334
MW-313B	4.8E-02	135
Geometric Mean	3.5E-02	100

Assumed Porosity, n
0.40

ft = feet
ft/d = feet per day
K = hydraulic conductivity
n = effective porosity

h1, h2 = point interpreted groundwater elevation at locations 1 and 2
Δl = distance between location 1 and 2
Δh/Δl = hydraulic gradient
V = groundwater flow velocity

- MW-310, MW-310A, and MW-311 are background wells and are not included in geometric mean calculation
- See Figures 3 and 5 for velocity calculation flow path locations.

Groundwater flow velocity equation: $V = [K*(\Delta h/\Delta l)] / n$

Last revision by: NLB
Checked by: LH

Date: 12/17/2024
Date: 12/17/2024

Table 4B. Vertical Gradients
Burlington Generating Station / SCS Engineers Project #25224066.00
January - December 2024

Vertical Hydraulic Gradients	MW302/MW302A		MW307/MW307A		MW-307A/MW-307B		MW310/MW310A		MW313/MW313A		MW313A/MW313B	
	Distance between midpoints (feet)	Vertical Gradient (ft/ft)	Distance between midpoints (feet)	Vertical Gradient (ft/ft)	Distance between midpoints (feet)	Vertical Gradient (ft/ft)	Distance between midpoints (feet)	Vertical Gradient (ft/ft)	Distance between midpoints (feet)	Vertical Gradient (ft/ft)	Distance between midpoints (feet)	Vertical Gradient (ft/ft)
Shallow Well Screen midpoint (feet amsl)	MW302 508.24		MW307 510.82		MW-307A 473.69		MW310 515.73		MW313 505.35		MW313A 475.15	
Deep Well Screen midpoint (feet amsl)	MW302A 475.84		MW307A 473.69		MW-307B 456.15		MW310A 486.23		MW313A 475.15		MW313B 466.64	
Measurement Date												
April 23-25, 2024	32.4	-0.002	37.1	0.035	17.5	-0.081	29.5	-0.071	30.2	0.000	8.5	0.006
October 22-23, 2024	32.4	-0.001	37.1	0.034	17.5	-0.084	29.5	-0.060	30.2	0.003	8.5	0.005

Notes:

- 1: A positive vertical gradient indicates upward groundwater flow. A negative gradient indicates downward flow.
- 2: The screen midpoint for water table wells is calculated as the midpoint between the water table elevation and screen bottom elevation.

Last revision by: NLB
Checked by: LH

Date: 11/21/2024
Date: 12/4/2024

Table 5A. Groundwater Analytical Results Summary - October 2023
Burlington Generating Station, Burlington, IA / SCS Engineers Project #25224066.00

Parameter Name	UPL Method	UPL	GPS	Background Wells		Compliance Wells										Delineation Wells						Supplemental Background Wells	
				MW-310	MW-311	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309	MW-302A	MW-307A	MW-307B	MW-312	MW-313	MW-313A	MW-313B	MW-310A	MW-314
				10/5/2023	10/5/2023	10/3/2023	10/3/2023	10/3/2023	10/3/2023	10/3/2023	10/4/2023	10/4/2023	10/3/2023	10/4/2023	10/3/2023	10/4/2023	10/4/2023	10/3/2023	10/4/2023	10/4/2023	10/4/2023	10/4/2023	10/5/2023
Groundwater Elevation, ft amsl				520.39	518.68	518.33	518.19	518.06	518.08	518.00	518.13	518.30	520.25	518.42	518.12	519.61	518.14	518.03	518.18	518.05	518.12	517.75	518.02
Appendix III																							
Boron, ug/L	NP	3,500		130	1400	5,200	1,600	3,700	5,800	1,500	3,100	3,200	5,900	11,000	--	--	--	--	--	--	--	790	160
Calcium, mg/L	P	220		100	130	150	120	120	430	150	99	52	150	310	--	--	--	--	--	--	--	48	180
Chloride, mg/L	P	193		12	21	15	3.8 J	25	14	29	<2.3	21	35	29	--	--	--	--	--	--	--	11	18
Fluoride, mg/L	P	0.65		<0.38	<0.38	0.38 J	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	--	--	--	--	--	--	--	0.39 J	<0.38
Field pH, Std. Units	P	7.55		7.01	6.93	6.76	6.65	6.87	6.55	6.19	8.78	8.18	7.14	6.92	7.11	7.53	7.51	6.83	7.00	7.49	7.13	7.30	6.69
Sulfate, mg/L	P	288		210	150	770	220	190	280	440	130	240	700	83	--	--	--	--	--	--	--	87	130
Total Dissolved Solids, mg/L	P	1,160		560	560	1600	530	590	570	840	520	460	1,300	550	--	--	--	--	--	--	--	570	720
Appendix IV																							
Antimony, ug/L	P	1.9	6	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<4.0	--	--	--	--	--	--	--	<1.0	<1.0
Arsenic, ug/L	P	79.8	79.8	45	5.5	3.8	3.8	14	32	2.7	34	10	5.6	89	--	--	--	--	--	--	--	0.82 J	4.3
Barium, ug/L	P	829	2,000	360	160	33	74	120	160	40	67	54	92	440	--	--	--	--	--	--	--	47	330
Beryllium, ug/L	NP	0.27	4	<0.33	<0.33	<0.33	<0.33	<0.33	<1.3	<0.33	<0.33	<0.33	<0.33	<1.3	--	--	--	--	--	--	--	<0.33	<0.33
Cadmium, ug/L	NP	0.077	5	<0.10	<0.10	<0.10	0.19 J	0.18 J	<0.40	<0.10	<0.10	0.18 J	0.17 J	<0.40	--	--	--	--	--	--	--	<0.10	<0.10
Chromium, ug/L	P	1.33	100	<1.1	<1.1	<1.1	<1.1	<1.1	<4.4	<1.1	<1.1	<1.1	<1.1	<4.4	--	--	--	--	--	--	--	<1.1	<1.1
Cobalt, ug/L	P	2.7	6	2.4	0.89	12	7.6	1.7	44	11	<0.17	0.41 J	4.5	0.95 J	--	--	--	--	--	--	--	<0.17	0.37 J
Fluoride, mg/L	P	0.65	4	<0.38	<0.38	0.38 J	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	--	--	--	--	--	--	--	0.39 J	<0.38
Lead, ug/L	NP	1.1	15	<0.24	<0.24	<0.24	<0.24	<0.24	0.97 J	<0.24	<0.24	<0.24	<0.24	<0.96	--	--	--	--	--	--	--	<0.24	<0.24
Lithium, ug/L	NP	9.8	40	<2.5	<2.5	13	40	31	500	20	35	95	220	15 J	4.6 J	8.6 J	5.0 J	18	13	4.8 J	5.9 J	38	4.6 J
Mercury, ug/L	DQ	0.13	2	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	--	--	--	--	--	--	--	<0.14	<0.14
Molybdenum, ug/L	NP	25.2	100	3.3	5.8	65	180	150	130	2.0	36	290	260	37	8.5	3.8	2.2	37	52	3.5	11	7.4	<0.91
Selenium, ug/L	P	1.00	50	<1.4	<1.4	<1.4	<1.4	<1.4	<5.6	<1.4	<1.4	<1.4	<1.4	<5.6	--	--	--	--	--	--	--	<1.4	<1.4
Thallium, ug/L	NP	0.5	2	<0.26	<0.26	<0.26	<0.26	3.6	1.2 J	<0.26	<0.26	<0.26	<0.26	<1.0	--	--	--	--	--	--	--	<0.26	<0.26
Radium 226/228 Combined, pCi/L	P	3.28	5	2.17	1.30	0.154	0.233	0.594	0.615	0.670	1.39	0.532	0.344	4.77	--	--	--	--	--	--	--	1.53	1.77
Additional Parameters Monitored for Selection of Remedy																							
Iron, ug/L				19000	11000	8200	3400	11000	130000	35000	57 J	610	6000	75000	3900	2000	1400	20000	14000	2000	2600	49 J	26,000
Magnesium, ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15000	--	--	--	--
Manganese, ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5900	--	--	--	--
Bicarbonate Alkalinity, mg/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	250	--	--	--	--
Carbonate Alkalinity, mg/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<2.5	--	--	--	--
Total Alkalinity, mg/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	250	--	--	--	--

4.4 Blue highlighted cell indicates the compliance or delineation well result exceeds the UPL (background) and the LOQ.
30.8 Yellow highlighted cell indicates the compliance or delineation well result exceeds the GPS.
17 Grayscale indicates Additional Parameters sampled for selection of remedy and evaluation of Monitored Natural Attenuation.

See page 2 for Notes and Abbreviations

Table 5A. Groundwater Analytical Results Summary - October 2023
Burlington Generating Station, Burlington, IA / SCS Engineers Project #25224066.00

Abbreviations:

UPL = Upper Prediction Limit
-- = Not Analyzed
mg/L = milligrams per liter
Std. Units = Standard Units

GPS = Groundwater Protection Standard
DQ = Double Quantitation Rule (not detected in background)
P = Parametric UPL with 1-of-2 retesting
NP = Nonparametric UPL with 1-of-2 retesting

LOD = Limit of Detection
LOQ = Limit of Quantitation
pCi/L = picocuries per liter

J = Estimated concentration at or above the LOD and below the LOQ.

Notes:

1. An individual result above the UPL or GPS does not constitute a statistically significant increase (SSI) above background or statistically significant level above the GPS. See the accompanying letter text for identification of statistically significant results.
2. GPS is the United States Environmental Protection Agency (US EPA) Maximum Contamination Level (MCL), if established, or the value from 40 CFR 257.95(h)(2), or the background upper tolerance limit if it is higher.
3. Interwell UPLs calculated based on results from background wells MW-310 and MW-311.
4. For compliance wells, only results confirmed above the LOQ are evaluated as potential SSIs above background.

Created by: <u>NDK</u>	Date: <u>5/1/2018</u>
Last revision by: <u>RM</u>	Date: <u>11/14/2023</u>
Checked by: <u>BAS</u>	Date: <u>11/15/2023</u>
Scientist or Proj Mgr QA/QC: <u>TK</u>	Date: <u>2/12/2024</u>

Table 5B. Groundwater Analytical Results Summary - April 2024
Burlington Generating Station, Burlington, IA / SCS Engineers Project #25224066.00

				Background Wells		Compliance Wells										Delineation Wells						Supplemental Background Wells		
Parameter Name	UPL Method	UPL	GPS	MW-310	MW-311	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309	MW-302A	MW-307A	MW-307B	MW-312	MW-313	MW-313A	MW-313B	MW-310A	MW-314	
				4/23/2024	4/25/2024	4/24/2024	4/24/2024	4/23/2024	4/23/2024	4/23/2024	4/23/2024	4/23/2024	4/24/2024	4/24/2024	4/23/2024	4/25/2024	4/24/2024	4/24/2024	4/24/2024	4/23/2024	4/24/2024	4/25/2024	4/25/2024	4/25/2024
Groundwater Elevation, ft amsl				523.93	522.23	521.23	520.85	520.89	520.90	520.96	520.89	521.08	521.36	521.18	520.78	522.38	520.96	520.93	520.87	520.87	520.92	521.84	520.95	
Appendix III																								
Boron, ug/L	NP	3,500		330	1400	5,600	2,000	8,100	4,400	1,800	2,200	3,200	5,700	12,000	--	--	--	--	--	--	--	930	130	
Calcium, mg/L	P	208		99	180	180	170	150	110	99	93	47	150	84	--	--	--	--	--	--	--	49	160	
Chloride, mg/L	P	167		16	47	15	13	31	38	32	36	28	50	29	--	--	--	--	--	--	--	9.3	12	
Fluoride, mg/L	P	0.526		<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	--	--	--	--	--	--	--	0.38	J <0.38	
Field pH, Std. Units	P	7.51		7.09	6.76	6.63	6.53	6.71	6.76	6.31	8.66	8.60	7.16	6.88	7.20	7.51	7.37	6.90	7.05	7.43	7.30	6.90	6.64	
Sulfate, mg/L	P	444		130	250	930	390	340	190	230	100	210	700	120	--	--	--	--	--	--	--	74	93	
Total Dissolved Solids, mg/L	P	1,060		430	790	1700	780	740	530	580	400	370	1,200	530	--	--	--	--	--	--	--	550	650	
Appendix IV																								
	UTL Method	UTL	GPS																					
Antimony, ug/L	NP	1.9	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	<1.0	<1.0	
Arsenic, ug/L	NP	79.8	79.8	24	6.3	7.1	4.6	17	15	3.9	32	12	5.3	21	--	--	--	--	--	--	--	1.7	J 3.9	
Barium, ug/L	NP	829	2,000	240	98	38	53	170	63	37	79	47	75	130	--	--	--	--	--	--	--	52	290 F1	
Beryllium, ug/L	NP	0.33	4	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	--	--	--	--	--	--	--	<0.33	<0.33	
Cadmium, ug/L	NP	0.10	5	<0.10	<0.10	<0.10	<0.10	<0.10	0.15	J <0.10	<0.10	0.10	J 0.17	J <0.10	--	--	--	--	--	--	--	<0.10	<0.10	
Chromium, ug/L	NP	1.10	100	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	--	--	--	--	--	--	--	<1.2	<1.2	
Cobalt, ug/L	NP	3.80	6	1.6	3.4	10	6.6	1.7	1.5	4.7	<0.17	<0.17	1.4	0.17	J --	--	--	--	--	--	--	0.67	0.59	
Fluoride, mg/L	P	0.537	4	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	--	--	--	--	--	--	--	0.38	J <0.38	
Lead, ug/L	NP	1.1	15	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	--	--	--	--	--	--	--	0.51	<0.26	
Lithium, ug/L	NP	9.8	40	<2.5	2.8	J 14	49	35	110	25	23	79	240	4.8	J 5.7	J 9.9	J 7.2	J 19	15	5.6	J 6.6	J 41	4.4	J
Mercury, ug/L	NP	0.15	2	<0.11	<0.11	<0.11	<0.11	F1 <0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	--	--	--	--	--	--	--	<0.11	<0.11	
Molybdenum, ug/L	P	23.5	100	3.0	4.7	64	F1 210	160	470	4.3	63	320	560	44	12	5.2	10.0	31	51	5.2	13	7.5	1.7	J
Selenium, ug/L	NP	1.4	50	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	--	--	--	--	--	--	--	<1.4	<1.4	
Thallium, ug/L	NP	0.5	2	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	--	--	--	--	--	--	--	<0.57	<0.57	
Radium 226/228 Combined, pCi/L	P	3.53	5	0.317	0.685	0.200	0.797	0.418	0.194	0.681	0.0168	0.595	0.602	0.521	--	--	--	--	--	--	--	1.13	0.923	
Additional Parameters Monitored for Selection of Remedy																								
Iron, ug/L	UPL or GPS not applicable			15000	16000	18000	8800	19000	23000	31000	<36	590	2200	20000	4000	1600	1700	16000	9300	1900	2100	270	15,000	
Magnesium, ug/L	UPL or GPS not applicable			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12000	--	--	--	--	
Manganese, ug/L	UPL or GPS not applicable			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4600	--	--	--	--	
Bicarbonate Alkalinity, mg/L	UPL or GPS not applicable			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	310	--	--	--	--	
Carbonate Alkalinity, mg/L	UPL or GPS not applicable			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<2.5	--	--	--	--	
Total Alkalinity, mg/L	UPL or GPS not applicable			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	310	--	--	--	--	

4.4 Blue highlighted cell indicates the compliance or delineation well result exceeds the UPL or UTL (background) and the LOQ.
30.8 Yellow highlighted cell indicates the compliance or delineation well result exceeds the GPS.
17 Grayscale indicates Additional Parameters sampled for selection of remedy and evaluation of Monitored Natural Attenuation.

See page 2 for Notes and Abbreviations

Table 5B. Groundwater Analytical Results Summary - April 2024
Burlington Generating Station, Burlington, IA / SCS Engineers Project #25224066.00

Abbreviations:

UPL = Upper Prediction Limit
UTL = Upper Tolerance Limit
GPS = Groundwater Protection Standard

ug/L - micrograms per liter
mg/L = milligrams per liter
-- = Not Analyzed

LOD = Limit of Detection
LOQ = Limit of Quantification
Std. Units = Standard Units

pCi/L = picocuries per liter

Lab Notes:

J = Estimated concentration at or above the LOD and below the LOQ.

F1 = MS and/or MSD recovery exceeds control limits.

Notes:

1. An individual result above the UPL or GPS does not constitute a statistically significant increase (SSI) above background or statistically significant level above the GPS. See the accompanying letter text for identification of statistically significant results.
2. GPS is the United States Environmental Protection Agency (US EPA) Maximum Contamination Level (MCL), if established, or the value from 40 CFR 257.95(h)(2), or the background upper tolerance limit if it is higher.
3. Interwell UPLs calculated based on results from background wells MW-310 and MW-311.
4. For compliance wells, only results confirmed above the LOQ are evaluated as potential SSIs above background.

Created by: <u>RM</u>	Date: <u>5/29/2024</u>
Last revision by: <u>RM</u>	Date: <u>8/14/2024</u>
Checked by: <u>NLB</u>	Date: <u>8/14/2024</u>
Scientist or Proj Mgr QA/QC: <u>TK</u>	Date: <u>8/27/2024</u>

**Table 6. Groundwater Field Data Summary
Burlington Generating Station / SCS Engineers Project #25224066.00**

Well	Sample Date	Groundwater Elevation (feet)	Field Temperature (deg C)	Field pH (Std. Units)	Oxygen, Dissolved (mg/L)	Field Specific Conductance (umhos/cm)	Field Oxidation Potential (mV)	Turbidity (NTU)
MW-301	10/3/2023	518.33	12.9	6.76	0.35	2,278	-90.4	5.90
	4/24/2024	521.23	12.1	6.63	0.21	2,450	-62.8	16.54
MW-302	10/3/2023	518.19	12.6	6.65	0.10	797	-53.4	6.25
	4/24/2024	520.85	11.3	6.53	0.21	1,126	-20.1	14.50
MW-302A	10/3/2023	518.12	13.9	7.11	0.46	467.3	-46.7	8.28
	4/24/2024	520.78	10.6	7.20	0.36	489.9	-103.2	13.13
MW-303	10/3/2023	518.06	12.2	6.87	0.10	954	140.2	4.90
	4/23/2024	520.89	11.6	6.71	0.18	1,165	-82.5	9.98
MW-304	10/3/2023	518.08	16.1	6.55	0.16	910	-109.2	4.74
	4/23/2024	520.90	14.4	6.76	0.18	923	-90.4	9.15
MW-305	10/3/2023	518.00	12.0	6.19	0.20	1,278	-46.3	3.16
	4/23/2024	520.96	12.9	6.31	0.17	955	-33.6	11.17
MW-306	10/4/2023	518.13	14.7	8.78	0.22	604	-102.7	6.14
	4/24/2024	520.89	12.2	8.66	0.15	662	-134.8	18.80
MW-307	10/4/2023	518.30	14.9	8.18	1.69	745	-201.0	6.27
	4/24/2024	521.08	11.6	8.60	0.26	658	-216.9	15.20
MW-307A	10/4/2023	519.61	9.8	7.53	0.20	503.5	-169.0	11.21
	4/24/2024	522.38	9.8	7.51	0.18	478.7	-128.2	18.65
MW-307B	10/4/2023	518.14	12.0	7.51	0.30	410.1	-141.9	10.54
	4/24/2024	520.96	10.3	7.37	0.26	462.9	-103.0	14.36

**Table 6. Groundwater Field Data Summary
Burlington Generating Station / SCS Engineers Project #25224066.00**

Well	Sample Date	Groundwater Elevation (feet)	Field Temperature (deg C)	Field pH (Std. Units)	Oxygen, Dissolved (mg/L)	Field Specific Conductance (umhos/cm)	Field Oxidation Potential (mV)	Turbidity (NTU)
MW-308	10/3/2023	520.25	13.2	7.14	0.19	1,766	-143.1	2.04
	4/23/2024	521.36	12.2	7.16	0.26	1,672	-69.9	8.40
MW-309	10/4/2023	518.42	15.0	6.92	0.18	1,040	-172.4	6.45
	4/25/2024	521.18	13.4	6.88	0.20	908	-118.3	22.15
MW-310	10/5/2023	520.39	19.5	7.01	0.11	951	-190.6	9.98
	4/23/2024	523.93	9.3	7.09	0.24	747	-141.7	16.10
MW-310A	10/5/2023	517.75	19.2	7.30	4.78	982	4.9	15.32
	4/25/2024	521.84	11.9	6.90	4.09	1,173	35.4	37.08
MW-311	10/5/2023	518.68	14.1	6.93	0.14	961	-152.5	9.47
	4/25/2024	522.23	11.3	6.76	0.19	1,279	-87.6	13.18
MW-312	10/3/2023	518.03	11.3	6.83	0.13	884	-161.4	5.26
	4/23/2024	520.93	10.8	6.90	0.25	778	-100.0	13.65
MW-313	10/4/2023	518.18	11.2	7.00	0.11	823	-168.8	9.58
	4/24/2024	520.87	9.8	7.05	0.23	679	-112.7	24.48
MW-313A	10/4/2023	518.05	8.9	7.49	0.69	433.6	-176.3	3.23
	4/25/2024	520.87	8.0	7.43	0.27	438.1	-119.3	10.93
MW-313B	10/4/2023	518.12	8.8	7.13	0.29	546.2	-135.6	6.20
	4/25/2024	520.92	8.6	7.30	0.29	483.1	-94.7	11.6
MW-314	10/5/2023	518.02	13.2	6.69	0.35	1,313	-130.7	18.75
	4/25/2024	520.95	11.7	6.64	0.38	1,148	-72.1	12.56

Notes:

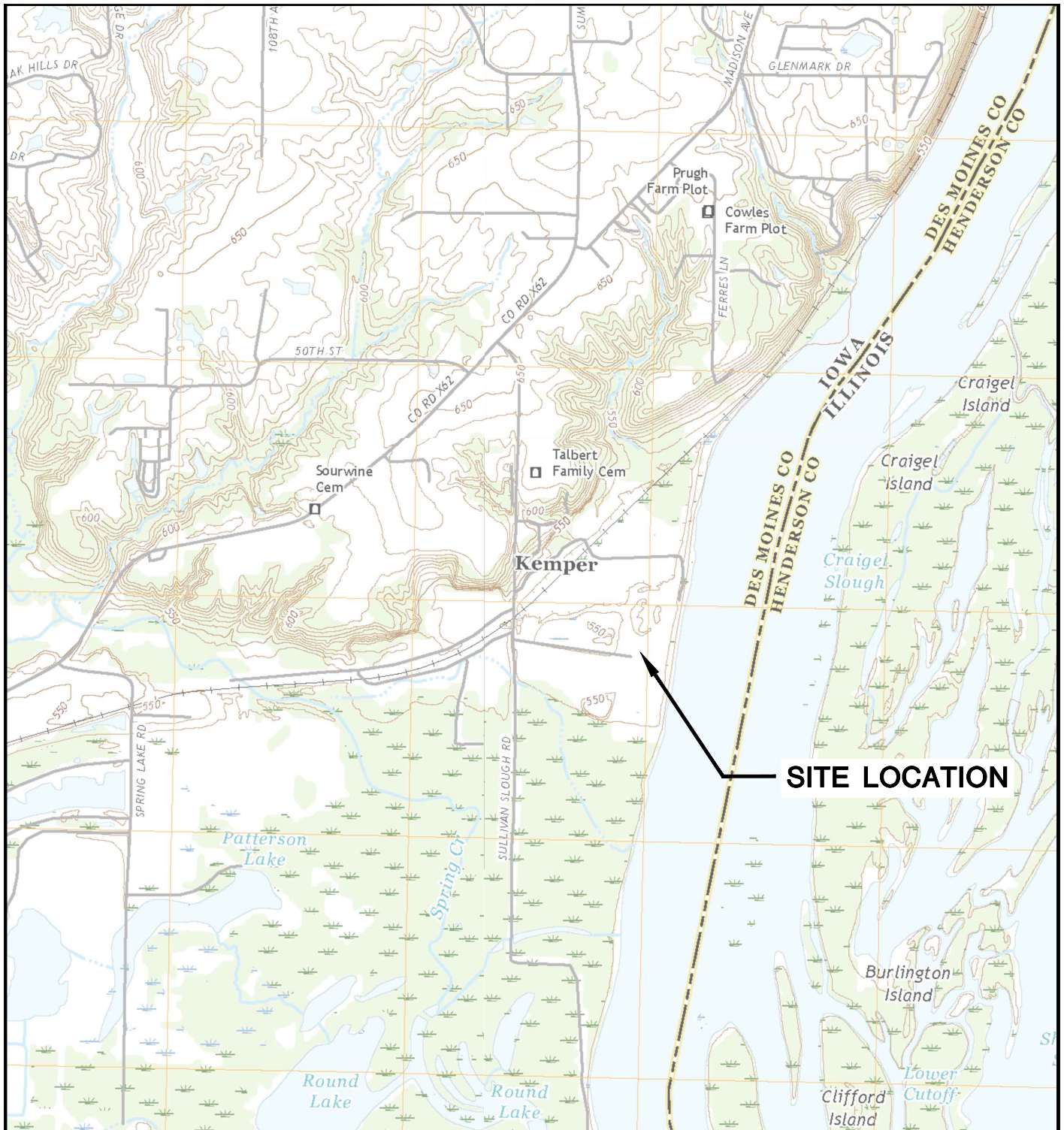
-- = Not sampled or unable to sample

Last revision by: JM
Checked by: EMS

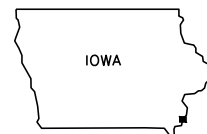
Date: 9/18/2024
Date: 9/30/2024

Figures

- 1 Site Location Map
- 2 Site Plan and Monitoring Well Locations
- 3 Shallow Potentiometric Surface Map – April 23-25, 2024
- 4 Shallow Potentiometric Surface Map – October 22-24, 2024
- 5 Deep Potentiometric Surface Map – April 23-25, 2024
- 6 Deep Potentiometric Surface Map – October 22-24, 2024



LOMAX QUADRANGLE
 ILLINOIS / IOWA-DES MOINES CO.
 7.5 MINUTE SERIES (TOPOGRAPHIC)
 2018
 SCALE: 1" = 2,000'



CLIENT	ALLIANT ENERGY 4902 N. BILTMORE LANE, #1000 MADISON, WI 53718		SITE	ALLIANT ENERGY BURLINGTON GENERATING STATION BURLINGTON, IOWA		ENGINEER	SCS ENGINEERS 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830		FIGURE
	PROJECT NO.	25219066.00		DRAWN BY:	BSS		1		
	DRAWN:	11/14/2019		CHECKED BY:	MDB				
REVISED:	01/14/2020	APPROVED BY:	TK 01/30/2020						

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LEGEND

- EXISTING CCR RULE MONITORING WELL
- CCR RULE PIEZOMETER
- CCR UNITS

NOTES:

1. MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15-17, 2015.
2. MONITORING WELLS MW-301, MW-302, AND MW-309 THROUGH MW-311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
3. MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
4. PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-311A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
5. PIEZOMETERS MW-307B AND MW-313B INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM AMY 10-12, 2021.
6. MONITORING WELL MW-314 INSTALLED BY TERRACON CONSULTANTS, INC. UNDER THE SUPERVISION OF SCS ENGINEERS ON FEBRUARY 25, 2022.
7. 2017 AERIAL PHOTOGRAPH SOURCES: GOOGLE EARTH DATED SEPTEMBER 14, 2017.

N



SCALE: 1" = 700'

PROJECT NO.	25221060.00	DRAWN BY:	BSS/KRG/BWM
DRAWN:	09/14/2020	CHECKED BY:	MDB
REVISED:	12/13/2022	APPROVED BY:	TK 1/22/2023

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PHONE: (608) 224-2830

CLIENT

ALLIANT ENERGY
4902 N. BILTMORE LANE, #1000
MADISON, WI 53718

SITE




ALLIANT ENERGY
BURLINGTON GENERATING STATION
BURLINGTON, IOWA

SITE PLAN AND MONITORING
WELL LOCATIONS

FIGURE
2



LEGEND

-  EXISTING CCR RULE MONITORING WELL
-  CCR RULE PIEZOMETER
-  CCR UNITS

NOTES:

1. MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF CASCADE ENGINEERS ON DECEMBER 15-17, 2015.
2. MONITORING WELLS MW-301, MW-302, AND MW-309 THROUGH MW-311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
3. MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
4. PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-311A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
5. PIEZOMETERS MW-307B AND MW-313B INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM AMY 10-12, 2021.
6. MONITORING WELL MW-314 INSTALLED BY TERRACON CONSULTANTS, INC. UNDER THE SUPERVISION OF SCS ENGINEERS ON FEBRUARY 25, 2022.
7. 2017 AERIAL PHOTOGRAPH SOURCES: GOOGLE EARTH DATED SEPTEMBER 14, 2017.

N



SCALE: 1" = 700'

PROJECT NO.	25221060.00	DRAWN BY:	BSS/KRG/BWM
DRAWN:	09/14/2020	CHECKED BY:	MDB
REVISED:	12/13/2022	APPROVED BY:	TK 1/22/2023

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 MADISON, WI 53718

SITE

ALLIANT ENERGY
 BURLINGTON GENERATING STATION
 BURLINGTON, IOWA

SITE PLAN AND MONITORING
 WELL LOCATIONS

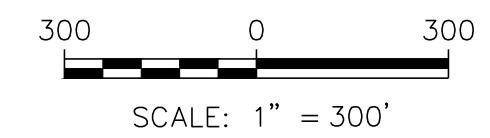
FIGURE
 2

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LEGEND	
	MONITORING WELL
	DEEP PIEZOMETER
	CCR BACKGROUND MONITORING WELL
	TEMPORARY MONITORING WELL
521.23	WATER LEVEL MEASURED APRIL 23-25, 2024
	WATER TABLE ELEVATION CONTOUR 0.5' INTERVAL (DASHED WHERE INFERRED)
	FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)
	APPROXIMATE FLOW DIRECTION

- NOTES:
- MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15-17, 2015.
 - MONITORING WELLS MW301, MW302, AND MW309-MW311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
 - MONITORING WELLS MW-301 THROUGH MW-311 WERE SURVEYED BY FRENCH-RENEKER ASSOCIATES OF FRANKLIN, IA ON MARCH 16, 2016.
 - MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
 - PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-313A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
 - PIEZOMETERS MW-307B AND MW-313B WERE INSTALLED BY CASCADE DRILLING IN MAY 2021.
 - GROUNDWATER ELEVATION ESTIMATED BASED ON MONITORING WELLS SCREENED BELOW THE POTENTIOMETRIC SURFACE IN THE SAND UNIT.
 - MW-314 IS LOCATED APPROXIMATELY 4,000 FEET SOUTH OF THE PLANT AND IS NOT SHOWN ON THE MAP.
 - BACKGROUND MONITORING WELLS FOR THE BURLINGTON GENERATING STATION ARE: MW-310 AND MW-311.
 - AERIAL PHOTOGRAPH FROM DRONEVIEW MAPPING, DATED NOVEMBER 25, 2023.



PROJECT NO.	25224066.00	DRAWN BY:	SB
DRAWN:	07/08/2024	CHECKED BY:	BRK
REVISED:	08/06/2024	APPROVED BY:	BRK 08/06/2024

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 4902 N. BILTMORE LANE, #1000
 MADISON, WI 53718

SITE
 ALLIANT ENERGY
 BURLINGTON GENERATING STATION
 BURLINGTON, IOWA

WATER TABLE ELEVATION CONTOUR MAP
 APRIL 23-25, 2024

FIGURE
 3

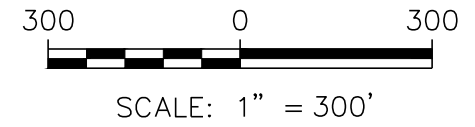
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LEGEND

- MONITORING WELL
- DEEP PIEZOMETER
- CCR BACKGROUND MONITORING WELL
- TEMPORARY MONITORING WELL
- 518.38** WATER LEVEL MEASURED OCT 22-23, 2024
- WATER TABLE ELEVATION CONTOUR 0.5' INTERVAL (DASHED WHERE INFERRED)
- APPROXIMATE FLOW DIRECTION
- FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)

- NOTES:**
- MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15-17, 2015.
 - MONITORING WELLS MW301, MW302, AND MW309-MW311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
 - MONITORING WELLS MW-301 THROUGH MW-311 WERE SURVEYED BY FRENCH-RENEKER ASSOCIATES OF FRANKLIN, IA ON MARCH 16, 2016.
 - MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
 - PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-313A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
 - PIEZOMETERS MW-307B AND MW-313B WERE INSTALLED BY CASCADE DRILLING IN MAY 2021.
 - GROUNDWATER ELEVATION ESTIMATED BASED ON MONITORING WELLS SCREENED BELOW THE POTENTIOMETRIC SURFACE IN THE SAND UNIT.
 - MW-314 IS LOCATED APPROXIMATELY 4,000 FEET SOUTH OF THE PLANT AND IS NOT SHOWN ON THE MAP.
 - BACKGROUND MONITORING WELLS FOR THE BURLINGTON GENERATING STATION ARE: MW-310 AND MW-311.
 - AERIAL PHOTOGRAPH FROM DRONEVIEW MAPPING, DATED NOVEMBER 25, 2023.



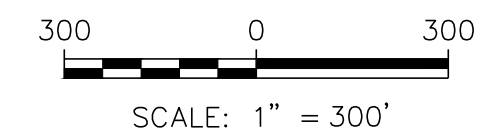
PROJECT NO. 25224066.00	DRAWN BY: SB	 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830	CLIENT ALLIANT ENERGY 4902 N. BILTMORE LANE, #1000 MADISON, WI 53718	SITE ALLIANT ENERGY BURLINGTON GENERATING STATION BURLINGTON, IOWA	WATER TABLE ELEVATION CONTOUR MAP OCTOBER 22-23, 2024	FIGURE
DRAWN: 11/08/2024	CHECKED BY: NLB/BRK					4
REVISED: 12/05/2024	APPROVED BY: BRK 12/05/2024					

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LEGEND	
	MONITORING WELL
	DEEP PIEZOMETER
	CCR BACKGROUND MONITORING WELL
	TEMPORARY MONITORING WELL
522.11	WATER LEVEL MEASURED APRIL 23-25, 2024
(521.83)	WATER LEVEL MEASURED APRIL 23-25, 2024, NOT USED FOR CONTOURING
	POTENTIOMETRIC SURFACE ELEVATION CONTOUR 0.5' INTERVAL (DASHED WHERE INFERRED)
	FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)
	APPROXIMATE FLOW DIRECTION

- NOTES:
1. MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15-17, 2015.
 2. MONITORING WELLS MW301, MW302, AND MW309-MW311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
 3. MONITORING WELLS MW-301 THROUGH MW-311 WERE SURVEYED BY FRENCH-RENEKER ASSOCIATES OF FRANKLIN, IA ON MARCH 16, 2016.
 4. MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
 5. PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-313A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
 6. PIEZOMETERS MW-307B AND MW-313B WERE INSTALLED BY CASCADE DRILLING IN MAY 2021.
 7. GROUNDWATER ELEVATION ESTIMATED BASED ON MONITORING WELLS SCREENED BELOW THE POTENTIOMETRIC SURFACE IN THE SAND UNIT.
 8. BACKGROUND MONITORING WELLS FOR THE BURLINGTON GENERATING STATION ARE: MW-310 AND MW-311.
 9. MW-310A IS SCREENED WITHIN MUDSTONE BEDROCK. THE GROUNDWATER ELEVATION AT THIS WELL IS NOT USED FOR POTENTIOMETRIC SURFACE CONTOURING.
 10. AERIAL PHOTOGRAPH FROM DRONEVIEW MAPPING, DATED NOVEMBER 25, 2023.



PROJECT NO.	25224066.00	DRAWN BY:	SB
DRAWN:	07/08/2024	CHECKED BY:	BRK
REVISED:	08/06/2024	APPROVED BY:	BRK 08/06/2024

ENGINEER

SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

CLIENT

ALLIANT ENERGY
4902 N. BILTMORE LANE, #1000
MADISON, WI 53718

SITE

ALLIANT ENERGY
BURLINGTON GENERATING STATION
BURLINGTON, IOWA

DEEP POTENTIOMETRIC SURFACE MAP
APRIL 23-25, 2024

FIGURE
5

\\Mad-fs01\data\Projects\25224066.00\Drawings\2024 Annual CCR Report\April 2024 Wtbl_2024 Annual CCR Report.dwg, 1/28/2025 5:00:41 PM




LEGEND

- MONITORING WELL
- DEEP PIEZOMETER
- CCR BACKGROUND MONITORING WELL
- TEMPORARY MONITORING WELL
- 517.97** WATER LEVEL MEASURED OCT 22-23, 2024
- (518.57)** WATER LEVEL MEASURED OCT 22-23, 2024 NOT USED FOR CONTOURING
- POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION CONTOUR 0.5' INTERVAL (DASHED WHERE INFERRED)
- APPROXIMATE FLOW DIRECTION
- FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)

- NOTES:**
1. MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15-17, 2015.
 2. MONITORING WELLS MW301, MW302, AND MW309-MW311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
 3. MONITORING WELLS MW-301 THROUGH MW-311 WERE SURVEYED BY FRENCH-RENEKER ASSOCIATES OF FRANKLIN, IA ON MARCH 16, 2016.
 4. MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
 5. PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-313A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
 6. PIEZOMETERS MW-307B AND MW-313B WERE INSTALLED BY CASCADE DRILLING IN MAY 2021.
 7. GROUNDWATER ELEVATION ESTIMATED BASED ON MONITORING WELLS SCREENED BELOW THE POTENTIOMETRIC SURFACE IN THE SAND UNIT.
 8. BACKGROUND MONITORING WELLS FOR THE BURLINGTON GENERATING STATION ARE: MW-310 AND MW-311.
 9. MW-310A IS SCREENED WITHIN MUDSTONE BEDROCK. THE GROUNDWATER ELEVATION AT THIS WELL IS NOT USED FOR POTENTIOMETRIC SURFACE CONTOURING.
 10. AERIAL PHOTOGRAPH FROM DRONEVIEW MAPPING, DATED NOVEMBER 25, 2023.

PROJECT NO. 25224066.00	DRAWN BY: SB	 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830	ALLIANT ENERGY 4902 N. BILTMORE LANE, #1000 MADISON, WI 53718	SITE ALLIANT ENERGY BURLINGTON GENERATING STATION BURLINGTON, IOWA	DEEP POTENTIOMETRIC GROUNDWATER SURFACE CONTOUR MAP OCTOBER 22-24, 2024	FIGURE 6
DRAWN: 11/08/2024	CHECKED BY: NLB/BRK					
REVISED: 12/05/2024	APPROVED BY: BRK 12/05/2024					

I:\Client\Alliant\PROJECT SITES\Burlington\CAD Master References BGS\Water Table Maps\2024 Annual CCR Report\24 annual rpt OCT 22-23_2024 Wtbl.dwg, 1/28/2025 4:58:51 PM



Appendix A
Regional Hydrogeologic Information

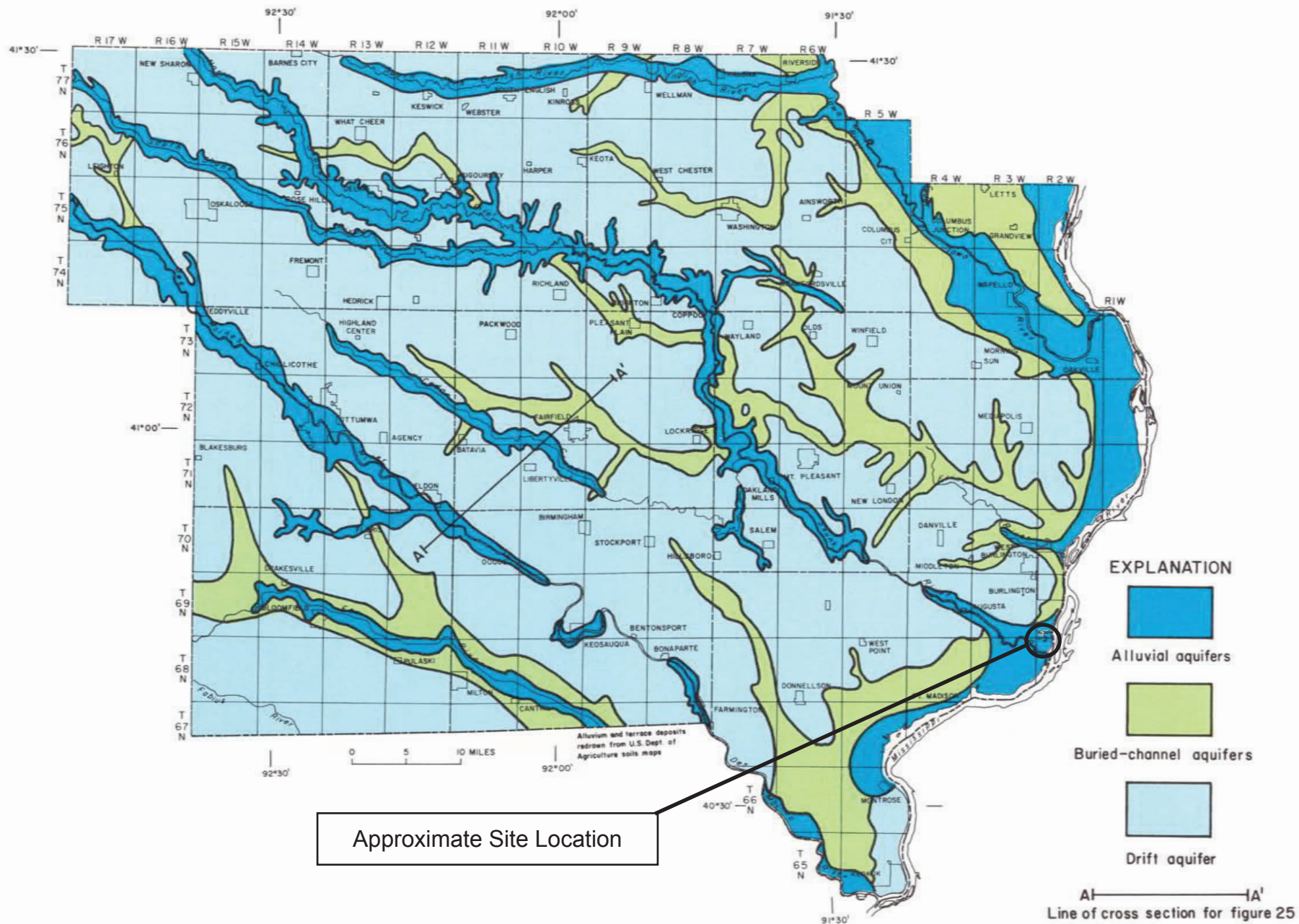


Figure 24.—Areal distribution of surficial aquifers

Source: Coble, R.W., The Water Resources of Southeast Iowa, Iowa Geological Survey Water Atlas Number 4, 1971.

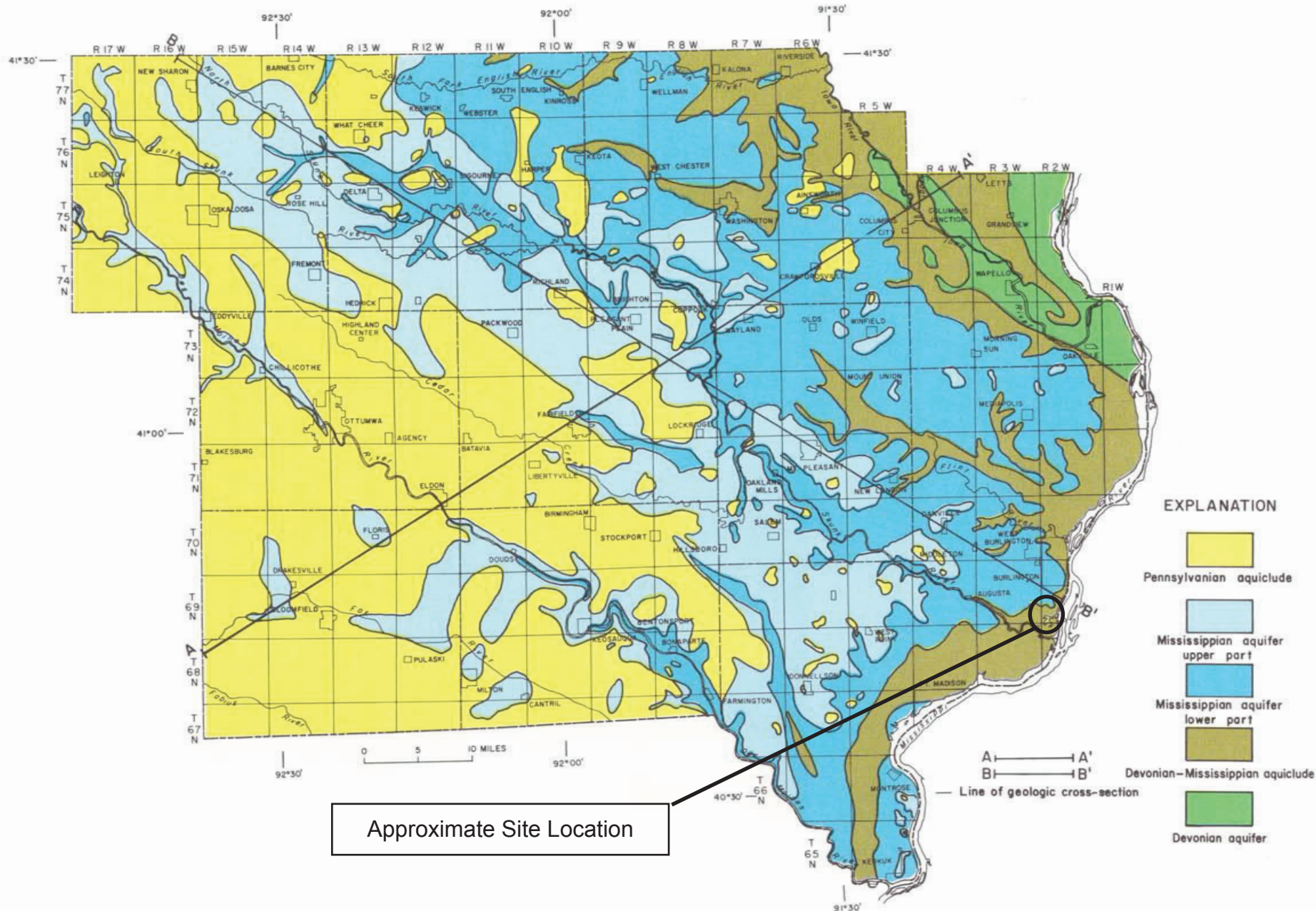


Figure 27.—Bedrock hydrogeologic map

Source: Coble, R.W., The Water Resources of Southeast Iowa, Iowa Geological Survey Water Atlas Number 4, 1971.

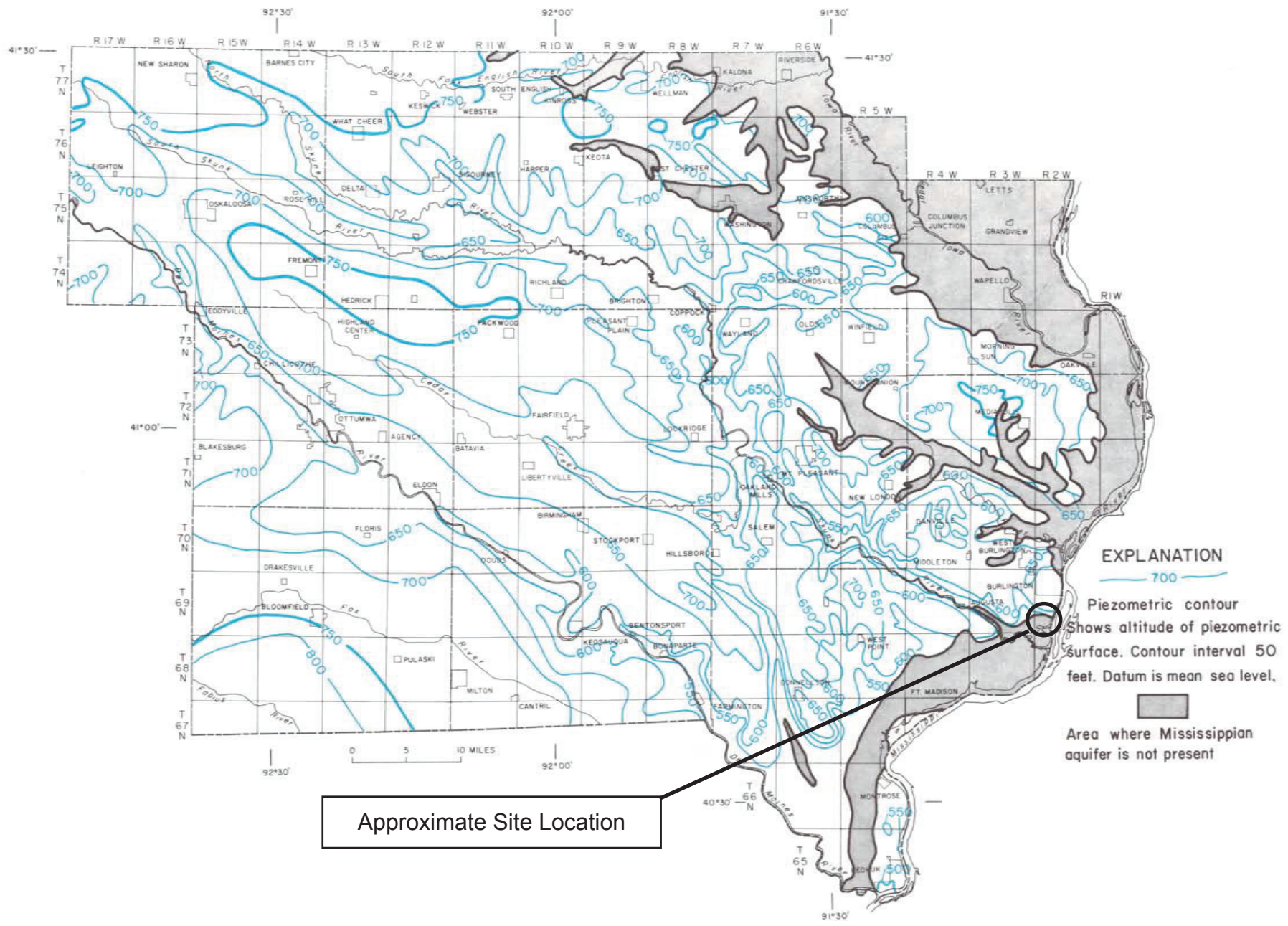



Figure 41.—Altitude of the water levels in wells tapping the Mississippiian aquifer

Source: Coble, R.W., The Water Resources of Southeast Iowa, Iowa Geological Survey Water Atlas Number 4, 1971.



Appendix B
Boring Logs and Well Construction Documentation

Route To: Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-301	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Collins Direct Push Analytical		Date Drilling Started 2/29/2016		Date Drilling Completed 2/29/2016	
Unique Well No.		DNR Well ID No.		Common Well Name MW-301	
Final Static Water Level Feet		Surface Elevation 536.0 Feet		Borehole Diameter 8.5 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		State Plane 278,382 N, 2,300,041 E S/C/N		Local Grid Location	
SW 1/4 of SW 1/4 of Section 29 , T 69 N, R 2 W		Lat _____ ° _____ ' _____ "		<input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	

Sample		Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)							Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
		1	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.	FILL										
		2												
		3												
		4												
		5												
		6												
		7												
		8												
		9												
		10												LEAN CLAY WITH SAND, very dark gray (10YR 3/1).
S1	16	11												
		12												
S2	45	14												
		15												

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm SCS Engineers 2830 Dairy Drive Madison, WI 53718	Tel: 608-224-2830 Fax:
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Boring Number MW-301

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S3	37		16	LEAN CLAY WITH SAND, very dark gray (10YR 3/1). (continued)	CL									
			17											
			18											POORLY GRADED SAND, very dark gray (10YR 3/1).
19														
S4	24		20	SILT WITH SAND, very dark gray (10YR 3/1).	ML									
			21	POORLY GRADED SAND, very dark gray (10YR 3/1).	SP									
			22	SANDY SILT, very dark gray (10YR 3/1).	MLS									
S5	NA		23	POORLY GRADED SAND, very dark gray (10YR 3/1).	SP									Recovery NA sleeve stuck in discrete sampler.
			24											
			25											
			26											
			27											
			28											
			29											
				End of Boring at 29.50 feet bgs.										

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-302	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Collins Direct Push Analytical		Date Drilling Started 2/29/2016		Date Drilling Completed 2/29/2016	
Unique Well No.		DNR Well ID No.		Common Well Name MW-302	
Final Static Water Level Feet		Surface Elevation 533.2 Feet		Borehole Diameter 8.5 in	

Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		Local Grid Location	
State Plane 278,310 N, 2,300,647 E S/C/N		Lat _____ " _____ "	
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W		Long _____ " _____ "	
		Feet <input type="checkbox"/> N <input type="checkbox"/> E Feet <input type="checkbox"/> S <input type="checkbox"/> W	

Facility ID	County Des Moines	Civil Town/City/ or Village Burlington
-------------	----------------------	---

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties						RQD/ Comments	
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200			
			1	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.	FILL											
			2													
			3													
			4													
			5													
			6													
			7													
			8													
			9													
			10													
S1	15		11	POORLY GRADED SAND WITH SILT, medium grained, very dark gray (10YR 3/1).	SP-SM											
S2	15		12	POORLY GRADED SAND, medium grained, very dark gray (10YR 3/1).	SP											
			13													
			14													
			15													

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm SCS Engineers 2830 Dairy Drive Madison, WI 53718	Tel: 608-224-2830 Fax:
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Boring Number MW-302

Page 2 of 2


Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S3	17		16	POORLY GRADED SAND, medium grained, very dark gray (10YR 3/1). (continued)	SP									
			17	LEAN CLAY, very dark gray (10YR 3/1).										
S4	15		18		CL					W				
			19											
S5	16		20	POORLY GRADED SAND, coarse grained, very dark gray (10YR 3/1).										
			21											
S4	15		22							W				
			23											
S5	16		24		SP									
			25											
S5	16		26							W				
			27											
			28	End of Boring at 28 feet bgs.										

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Burlington Generating Station		SCS#: 25220055.00		License/Permit/Monitoring Number		Boring Number MW-302A	
Boring Drilled By: Name of crew chief (first, last) and Firm Jeff Crank Roberts Environmental Services				Date Drilling Started 6/30/2020		Date Drilling Completed 7/1/2020	
WI Unique Well No.		DNR Well ID No.		Common Well Name		Final Static Water Level 11.92 Feet	
						Surface Elevation 533.51 Feet MSL	
						Borehole Diameter 8.0 in.	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 278,310 N, 2,300,647 E S/C/N				Lat _____ " _____ "		Local Grid Location	
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W				Long _____ " _____ "		Feet <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County Des Moines		County Code		Civil Town/City/ or Village Burlington	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
	0		0	Blind drilled to 28' bgs											
			1												
			2	See boring logs for MW-302 for log information from 0-25'bgs.											
			3												
			4												
			5												
			6												
			7												
			8												
			9												
			10												
			11												
			12												
			13												
			14												
			15												

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm SCS Engineers	Tel: Fax:
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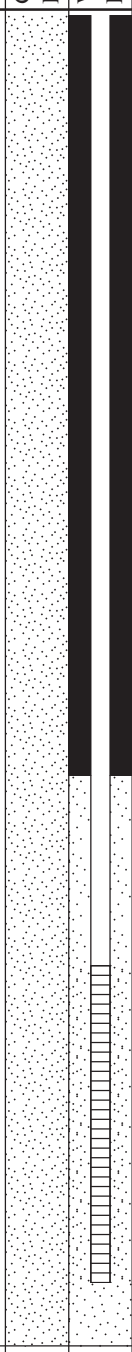
This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Boring Number **MW-302A** Use only as an attachment to Form 4400-122. Page **2** of **3**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			16											
			17											
			18											
			19											
			20											
			21											
			22											
			23											
			24											
S1	14	34 78	25	POORLY GRADED SAND, mostly fine to meium grain, trace coarse grain, gray to dark gray (5y, 4/1), with clay lense at top of spoon. olive gray, dense.										
			26											
			27											
			28											
			29											
S2	3	02 45	30	Same, fine grain, trace coarse grain with large piece of limestone.										
			31											
			32											
			33		SP									
			34											
			35											
S3	0	68 78	36	No returns										
			37											
			38											
			39											
			40											

Roberts began using water to keep sand from backing up into augers. Took two jar samples from 25-27' bgs.

Boring Number **MW-302A** Use only as an attachment to Form 4400-122. Page **3** of **3**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments		
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200			
S4	6	5 7 8 13	41	POORLY GRADED SAND, fine to coarse grain, with gravel, gray to dark gray (5y, 3/1), with very trace silt (same color).												
			42													
			43													
			44													
S5	0	4 12 16 14	45	No returns												
			46													
			47													
			48													
S6	15	3 8 12 14	49	POORLY GRADED SAND, fine to coarse grain, trace gravel, gray to darkish gray brown, 5y, 4/1).	SP											
			50													
			51													
			52													
			53													
			54													
S7	14	3 6 12 18	55	Same												
			56													
			57													
			58													
			59													
			60													
S8	24	6 9 13 25	61	End of Boring at 61' below ground surface. Well placed at 60' bgs.												

SCS ENGINEERS

Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-303	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling		Date Drilling Started 12/15/2015		Date Drilling Completed 12/15/2015	
Drilling Method 4-1/2 hollow stem auger		Unique Well No.		DNR Well ID No.	
Common Well Name MW-303		Final Static Water Level Feet		Surface Elevation 531.0 Feet	
Borehole Diameter 8.5 in		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		Local Grid Location	
State Plane 278,450 N, 2,300,854 E S/C/N		Lat ° ' "		<input type="checkbox"/> N <input type="checkbox"/> E	
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W		Long ° ' "		Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			1-10	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.	FILL									
S1	0	46 88	11	LEAN CLAY, dark gray (10YR 3/1).	CL									Rock in the end of shoe.
S2	14	24 45	14											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm SCS Engineers 2830 Dairy Drive Madison, WI 53718	Tel: 608-224-2830 Fax:
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Boring Number MW-303

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S3	15	22 46	16 17	LEAN CLAY, dark gray (10YR 3/1). <i>(continued)</i>					W					
S4	3	12 38	18 19		CL				W				Rock in the end of shoe.	
S5	10	48 99	20 21 22	POORLY GRADED SAND, coarse grained, very dark gray (2.5Y 3/1), some gravel.	SP				W					
S6	14	12 89	23 24 25	POORLY GRADED SAND, very dark gray (2.5Y 3/1), medium grained.	SP				W					
S7	8	46 810	26 27	same as above except, coarse grained.					W					
				End of Boring at 27.50 ft bgs.										

SCS ENGINEERS

Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-304	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling		Date Drilling Started 12/15/2015		Date Drilling Completed 12/15/2015	
Unique Well No.		DNR Well ID No.		Common Well Name MW-304	
Final Static Water Level Feet		Surface Elevation 532.2 Feet		Borehole Diameter 8.5 in	

Local Grid Origin (estimated:) or Boring Location
 State Plane 278,721 N, 2,300,883 E S/C/N Lat _____ ' _____ " N E
 SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W Long _____ ' _____ " Feet S Feet W

Facility ID _____ County Des Moines Civil Town/City/ or Village Burlington

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties						RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			1	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.											
			2												
			3												
			4												
			5		FILL										
			6												
			7												
			8												
			9												
			10	FAT CLAY, dark gray (10YR 3/1).											
S1	12	3 4 11 14	11												
			12												
			13												
S2		2 3 5 5	14		CH										
			15												

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm SCS Engineers 2830 Dairy Drive Madison, WI 53718 Tel: 608-224-2830 Fax: _____

Boring Number **MW-304**

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments				
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200					
S3	14	1 1 2 4	16 17	SANDY SILT, very dark gray (2.5Y 3/1), fine grained.	ML													
S4	14	1 2 3	18 19	POORLY GRADED SAND, very dark gray (2.5Y 3/1), medium grained.														
S5	24	2 3 5 8	21 22		SP													
S6	12	3 5 6 7	23 24	Same as above except, coarse grained.														
S7	12	3 6 11 16	25 26															
			27	End of boring at 27 feet bgs.														

SCS ENGINEERS

Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-305	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling		Date Drilling Started 12/17/2015		Date Drilling Completed 12/17/2015	
Unique Well No.		DNR Well ID No.		Common Well Name MW-305	
Final Static Water Level Feet		Surface Elevation 530.9 Feet		Borehole Diameter 8.5 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		State Plane 280,157 N, 2,300,473 E S/C/N		Local Grid Location	
NE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W		Lat _____ Long _____		<input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			1	FILL, boring location was cleared to 5' bgs by hydrovac, then back filled.										
			2		FILL									
			3											
			4											
			5											
S1	14	13 30 20 12	6	SILT, ash, black (2.5Y 2.5/1), (fill).						M				
			7											
S2	6	3 4 2 1	8		ML					M				
			9											
			10											
S3	5	4 4 6 7	11	LEAN CLAY, olive (5Y 4/4).						M				
			12											
			13											
S4	10	2 4 6 8	14	same as above except, black (2.5Y 2.5/1).	CL					M				
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm SCS Engineers 2830 Dairy Drive Madison, WI 53718	Tel: 608-224-2830 Fax:
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Boring Number MW-305

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S5	14	11 23	16	LEAN CLAY, olive (5Y 4/4). (continued)	CL									
			17											
S6	16	11 22	18	same as above except, very dark gray (10YR 3/1).										
			19											
S7	12	12 45	20	POORLY GRADED SAND, very dark gray (10YR 3/1), coarse grained.										
			21							W				
			22											
S8	12	11 23	23		SP									
			24								W			
			25											
S9	8		26											
			27							W				
				End of Boring at 27.50 ft bgs.										

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-306	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling			Date Drilling Started 12/16/2015		Date Drilling Completed 12/17/2015
Unique Well No.	DNR Well ID No.	Common Well Name MW-306	Final Static Water Level Feet	Surface Elevation 534.5 Feet	Borehole Diameter 8.5 in
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 279,643 N, 2,300,362 E S/C/N			Lat <input type="checkbox"/> ° <input type="checkbox"/> ' <input type="checkbox"/> "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W
NE 1/4 of SW 1/4 of Section 29 , T 69 N, R 2 W			Long <input type="checkbox"/> ° <input type="checkbox"/> ' <input type="checkbox"/> "		Feet <input type="checkbox"/> S <input type="checkbox"/> W

Facility ID	County Des Moines	Civil Town/City/ or Village Burlington
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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			1	FILL, boring location was cleared to 7.5' bgs by hydrovac, then back filled.	FILL									
			2											
			3											
			4											
			5											
			6											
			7											
S1	22	68 12 12	8	SANDY SILT, very dark gray (2.5Y 3/1), fine grained sand.	ML									
			9											
			10											
S2	22	72 22	11											
			12											
			13											
			14											
S3	12	49 19 21	15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm SCS Engineers 2830 Dairy Drive Madison, WI 53718	Tel: 608-224-2830 Fax:
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Boring Number MW-306

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments				
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200					
S4	10	22 22	16	LEAN CLAY, black (2.5Y 2.5/1).														
			17															
S5	10	11 12	18		CL													
			19															
			20															
S6	22	34 5	21	SANDY SILT, very dark gray (2.5 3/1), fined grained sand.														
			22		ML													
			23															
S7	10	11 12	23	LEAN CLAY, black (2.5Y 2.5/1).														
			24		CL													
			25															
S8	20	23 6 10	25	POORLY GRADED SAND, very dark gray (2.5Y 3/1), coarse grained.														
			26															
			27															
			28															
S9	10	13 3 5	28															
			29															
			30															
S10	10	22 3 8	30		SP													
			31															
			32															
			33															
			34	End of boring at 34 ft bgs.														

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-307	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling		Date Drilling Started 12/16/2015		Date Drilling Completed 12/16/2015	
Unique Well No.		DNR Well ID No.		Common Well Name MW-307	
Final Static Water Level Feet		Surface Elevation 534.3 Feet		Borehole Diameter 8.5 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 279,517 N, 2,300,349 E S/C/N		Lat ° ' "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
NE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W		Long ° ' "		Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W	

Facility ID	County Des Moines	Civil Town/City/ or Village Burlington
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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			1	FILL, boring location was cleared to 7.5' bgs by hydrovac, then back filled.											
			2												
			3												
			4		FILL										
			5												
			6												
			7												
S1	0		8	SILT, ash, (fill).	FILL										
			9												
S2	16	13 8 6 11	10	SANDY SILT, ash, fine grained, very dark gray, (2.5Y 3/1), (fill).								W			
			11												
			12		FILL										
			13												
S3	15	4 9 6 3	14									W			
			15	SANDY SILT, fine grained, very dark gray, (2.5Y 3/1).	ML										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature <i>Jackie Rennebohm</i> for Kyle Kramer	Firm SCS Engineers 2830 Dairy Drive, Madison, WI 53718 608-224-2830	Tel: Fax:
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Amended on 10/6/2021

Boring Number **MW-307**

Page 2 of 2


Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S4	18	13 55	16	SANDY SILT, fine grained, very dark gray, (2.5Y 3/1). <i>(continued)</i>	ML				W					
S5	20	12 22	18	LEAN CLAY, black, (10YR 2/1).	CL				W					
S6	16	12 46	20	POORLY GRADED SAND, coarse grained, very dark gray, (2.5Y 3/1).					W					
S7	10	12 44	22		SP				W					
S8	12	22 34	24						W					
			26											
			27	End of boring at 27 ft bgs.										

Route To: Watershed/Wastewater Waste Management
 Remediation/Redevelopment , other

Facility/Project Name Burlington Generating Station		SVS#: 2H288H88		License/Permit/Monitoring Number		Boring Number MW-380A	
Boring Drilled By: Name of Crew Chief (first/last) and Firm Jeff VranP Roberts Environmental Services				Date Drilling Started 11/24/2828		Date Drilling Completed 01/1/2828	
WI Unique Well No		H x R Well H x o5		Common Well Name		Final Static Water Level 12.09 Feet	
						Surface Elevation HB354 Feet MS7	
						Borehole Diameter D8 in5	
Local Grid, Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 206110 x L 213881346 E S/V/x				7 at _____' _____'		Local Grid Location	
x E 1/4 of SW 1/4 of Section 26L T "6 x LR 2 W				7ong _____' _____'		Feet <input type="checkbox"/> x Feet <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility Loc		County Des Moines		County Code		Civil Town/Village or Precinct Burlington	

Sample Number and Type	7 engt9 Att5& Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USVS	Graphic Log	Well Diagram	Oh/Fth	Soil Properties					RQh/Comments
									Standard Penetration	Moisture Content	Liquid Limit	Elasticity Index	O288	
8			1 2 3 4 H " 0 D 6 18 11 12 13 14 1H	Blind drilled to 28' bgs See boring logs for MW-380 for log information from 8-28'bgs5										

I hereby certify that the information on this form is true and correct to the best of my knowledge

Signature  Firm **SVS Engineers** Tel: _____
FaC: _____

This form is authorized by Chapters 2DIL2D1L2D6L261L262L263L26H and 266LWis5 Stats5 Completion of this form is mandatory5 Failure to file this form may result in forfeiture of between \$18 and \$2H888Lor imprisonment for up to one yearLdepending on the program and conduct involved5 Personally identifiable information on this form is not intended to be used for any other purpose5 x, TE: See instructions for more informationLincluding where the completed form should be sent5

Boring number **MW-380A** Use only as an attachment to Form 4488-1225 Page **2** of **3**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Region For Each Major Unit	USVS	Graphic Log	Well Diagram	Other/Flt	Soil Properties					RQh / Comments													
Number and Type	Length Att 5 & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	OC														
S1	16	31 86	1"	SI7 TLdarP gray (25Y L2.5/1) Lwit9 trace sand Lfine grain to coarse5	M7				80H	W																	
			21"												22"	23"	24"	25"	26"	27"	28"	29"	30"	31"	32"	33"	34"
S2	14	H0 611	21"	Same						W																	
			22"	23"											24"	25"	26"	27"	28"	29"	30"	31"	32"	33"	34"	35"	36"
S3	D	3" 00	38"	Same Ltrace silt5	SO					W																	
			39"	40"											41"	42"	43"	44"	45"	46"	47"	48"					
S4	D	3 H 0 D	39"	Same Lfine to medium grain Lgrayis9 brown (25Y L3/1) L trace pieces of gravel Lno silt5						W																	
			40"	41"											42"	43"	44"	45"	46"	47"	48"						





Boring Number: **MW-380A** Use only as an attachment to Form 4488-1225 Page **3** of **3**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Region For Each Major Unit	USVS	Graphic Log	Well Diagram	Other/Flt	Soil Properties					RQh / Comments		
Number and Type	Length Att 5' & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	OC			
SH	22	23	41	Q, R7Y GRAh Eh SAx h Lfine to medium grainL gray (2H/L4/1) Ltrace gravel wit9 ". layer of sticPs in middle of spoon5											7arge amount of sticPs in center of spoon5	
S"	28	4"	4"	SameLfine to coarse grainLtrace gravelLgray to grayis9 brown (2H/L4/1) wit9 trace sticPs5												
S0	85H	4 2" 1"	H1	SameLno sticPs5	so											Refusal last " inches sand pushed up into augers and locPed up spoon5
SD	28	4 6 14 16	H' HD HD HD HD HD HD HD	SameLfine to medium grainLgray to grayis9 brown (2H/L4/1)5												TooP two jar samples from HHD' bgs5
				End of boring ar "8' below ground surface5 Set well from H' bgs5												

Route To: Watershed/Wastewater Waste Management
Remediation/Rcdevelopment Other

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-308	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling			Date Drilling Started 12/15/2015	Date Drilling Completed 12/16/2015	Drilling Method 4-1/2 hollow stem auger
Unique Well No.	DNR Well ID No.	Common Well Name MW-308	Final Static Water Level Feet	Surface Elevation 534.9 Feet	Borehole Diameter 8.5 in
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 279,359 N, 2,300,306 E S/C/N			Lat <input type="checkbox"/> ° <input type="checkbox"/> ' <input type="checkbox"/> "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W
NE 1/4 of SW 1/4 of Section 29 , T 69 N, R 2 W			Long <input type="checkbox"/> ° <input type="checkbox"/> ' <input type="checkbox"/> "		Feet <input type="checkbox"/> S <input type="checkbox"/> W

Facility ID	County Des Moines	Civil Town/City/ or Village Burlington
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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties						RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			1	FILL, boring location was cleared to 5' bgs by hydrovac, then back filled.	FILL										
S1	14	22 12 13 15	5-6	SANDY SILT, olive brown (2.5Y 4/3).									W		
S2	18	2 2 4 8	8-9										W		
S3	18	1 2 2 50	11-12		MLS								W		
S4	14	3 15 50	13-14										W		

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm SCS Engineers 2830 Dairy Drive Madison, WI 53718	Tel: 608-224-2830 Fax:
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Boring Number MW-308

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Aft. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S5	12	6 4 2 4	16 17	LEAN CLAY, black (2.5Y 2.5/1).	CL									
S6	12	5 6 5 10	18 19											
S7	18	1 1 1 2	20 21 22	SILT, very dark gray (7.5YR 3/1), trace sand.	ML									
S8	10	1 12 13 18	23 24	POORLY GRADED SAND, very dark gray (2.5Y 3/1), coarse grained.										
S9	12	2 6 8 10	25 26 27		SP									
S10		2 2 6 8	28 29											
				End of Boring at 29.5 ft bgs.										

SCS ENGINEERS

Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-309	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Collins Direct Push Analytical		Date Drilling Started 3/1/2016		Date Drilling Completed 3/1/2016	
Drilling Method 4-1/2 hollow stem auger		Final Static Water Level Feet		Surface Elevation 534.1 Feet	
Unique Well No.		DNR Well ID No.		Borehole Diameter 8.5 in	
Common Well Name MW-309		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		Local Grid Location	
State Plane 279,210 N, 2,300,022 E S/C/N		Lat _____ "		<input type="checkbox"/> N <input type="checkbox"/> E	
SW 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W		Long _____ "		Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	

Sample		Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)							Blow Counts	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
		1-10	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.	FILL	[Hatched Pattern]	[Well Diagram]								
S1	14	10-11	LEAN CLAY, olive brown (2.5Y 4/3).	CL						W				
S2	34	11-14	Same as above except, gray (2.5Y 6/1).	CL						W				

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature <i>[Signature]</i>	Firm SCS Engineers 2830 Dairy Drive Madison, WI 53718	Tel: 608-224-2830 Fax:
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Boring Number MW-309

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S3	34		16	LEAN CLAY, olive brown (2.5Y 4/3). (continued)	CL									
			17	Same as above except, very dark gray (2.5Y 3/1).										
S4	31		18	POORLY GRADED SAND, coarse grained, very dark gray (10YR 3/1).	SP									
			19											
			20											
			21											
			22											
			23											
			24											
			25	End of Boring at 25 feet bgs.										

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-310	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Collins Direct Push Analytical		Date Drilling Started 3/1/2016		Date Drilling Completed 3/1/2016	
Unique Well No.		DNR Well ID No.		Common Well Name MW-310	
Final Static Water Level Feet		Surface Elevation 532.2 Feet		Borehole Diameter 8.5 in	

Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		Lat _____		Local Grid Location	
State Plane 279,610 N, 2,298,832 E S/C/N		Long _____		<input type="checkbox"/> N <input type="checkbox"/> E	
NE 1/4 of SE 1/4 of Section 30, T 69 N, R 2 W				<input type="checkbox"/> S <input type="checkbox"/> W	

Facility ID	County Des Moines	Civil Town/City/ or Village Burlington
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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties						RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
S1	13		1	LEAN CLAY WITH SAND, dark olive brown (2.5Y 3/3).											
			2												M
			3												
S2	33		4	Same as above except, very dark gray (2.5Y 3/1).	CL										
			5												M
S3	22		6	Trace organics.											
			7												M
S4	31		8	SILTY SAND, very dark grayish brown (2.5Y 3/2).	SM										
			9												
			10												
			11	POORLY GRADED SAND, coarse grained, very dark grayish brown (2.5Y 3/2).	SP										
			12												W
			13												
			14												
			15												

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm SCS Engineers 2830 Dairy Drive Madison, WI 53718	Tel: 608-224-2830 Fax:
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Boring Number MW-310

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S5	35		16	POORLY GRADED SAND, coarse grained, very dark grayish brown (2.5Y 3/2). (continued)	SP									
			17											
S6	NA		18	LEAN CLAY, dark gray (2.5Y 4/1).	CL									
			19											
			20											
			21											
S6	NA		22	POORLY GRADED SAND, very dark grayish brown (2.5Y 3/2).	SP									
			23											
			24											
			24	End of Boring at 24 feet bgs.										

Sample stuck in discrete sampler. Refusal @24'.

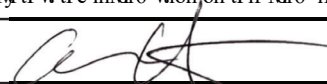
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Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-311	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Collins Direct Push Analytical		Date Drilling Started 3/1/2016		Date Drilling Completed 3/1/2016	
Unique Well No.		DNR Well ID No.		Common Well Name MW-311	
Final Static Water Level Feet		Surface Elevation 532.7 Feet		Borehole Diameter 8.5 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		State Plane 279,439 N, 2,298,835 E S/C/N		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
NE 1/4 of SE 1/4 of Section 30 , T 69 N, R 2 W		Lat _____ Long _____		Feet _____	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S1	14		1	TOPSOIL.	TOPSOIL									
			2	LEAN CLAY, dark olive brown (2.5Y 3/3).	CL					M				
S2	8		4	POORLY GRADED SAND, yellowish brown (10YR 5/8), coarse grained.										
			6		SP				M					
S3	6		8	LEAN CLAY, very dark gray (2.5Y 3/1).										
			10		CL				M			Rock in shoe.		
S4	25		14											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm SCS Engineers 2830 Dairy Drive Madison, WI 53718	Tel: 608-224-2830 Fax:
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Boring Number MW-311

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S5	34		16	LEAN CLAY, very dark gray (2.5Y 3/1). (continued)	CL									
			17	SILTY SAND, black (2.5Y 2.5/1).	SM									
			18											
S6	40		19	POORLY GRADED SAND, very dark grayish brown (2.5Y 3/2).	SP									
			20	SILTY SAND, very dark grayish brown (2.5Y 3/2).	SM									
			21											
			22											
S7	45		23	SILT, very dark grayish brown (2.5Y 3/2).	ML									
			24	LEAN CLAY, dark gray (2.5Y 4/1), laminated, organics.	CL									
			25											
			26											
			27											
28	POORLY GRADED SAND, very dark grayish brown (2.5Y 3/2).	SP												
S8	30		29	LEAN CLAY, dark gray (2.5Y 4/1), laminated, organics.	CL									
			30											
			31	Same as above except, dark greenish gray (5GY 4/1), shells.										
			32	End of Boring at 32 feet bgs.										

SCS ENGINEERS

Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name IPL - Burlington Generating Station SCS#: 25218220.00		License/Permit/Monitoring Number		Boring Number MW312	
Boring Drilled By: Name of crew chief (first, last) and Firm Jeff Crank Roberts Environmental Drilling		Date Drilling Started 5/20/2019		Date Drilling Completed 5/20/2019	
Unique Well No.		DNR Well ID No.		Common Well Name MW312	
Final Static Water Level 531.08 Feet		Surface Elevation 533.8 Feet		Borehole Diameter 8.5 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		State Plane 279,576 N, 2,300,970 E S/C/N		Local Grid Location	
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2		Lat _____"		<input type="checkbox"/> N <input type="checkbox"/> E	
		Long _____"		Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			1	Hydrovaced to 8'											
4	33 67		9	LEAN CLAY, teal/blue, (GLEY1 5/10 GY), trace coarse sand.							M				
18	34 57		11	same as above but dark green, (GLEY1 3/10 GY), with gravel.	CL						M				
10	12 58		13	trace organic material							M				
			14	same as above but dark green, (10YR 2/1).											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm SCS Engineers 2830 Dairy Drive, Madison, WI 53718	Tel: Fax:
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Boring Number MW312

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
24	1 4	5 6	14	LEAN CLAY, teal/blue, (GLEY1 5/10 GY), trace coarse sand. (continued)	CL					M				
			16											
			17							M				
			18											
		2 3	19	POORLY GRADED SAND, fine to coarse, (2.5YR 3/2).						M				
		3 4	20											
			21											
6	0 1	2 3	21							W				
			22											
6	1 2	4 5	23	SP						W				
			24											
4			25							W				
			26	End of Boring at 26 feet.										

SCS ENGINEERS

Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name IPL - Burlington Generating Station SCS#: 25218220.00		License/Permit/Monitoring Number		Boring Number MW313	
Boring Drilled By: Name of crew chief (first, last) and Firm Jeff Crank Roberts Environmental Drilling		Date Drilling Started 5/21/2019		Date Drilling Completed 5/21/2019	
Unique Well No.		DNR Well ID No.		Common Well Name MW313	
Final Static Water Level 531.05 Feet		Surface Elevation 534.0 Feet		Borehole Diameter 8.5 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		State Plane 279,130 N, 2,300,907 E S/C/N		Local Grid Location	
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2		Lat _____ "		<input type="checkbox"/> N <input type="checkbox"/> E	
Long _____ "		Feet <input type="checkbox"/> S		Feet <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			1	Hydrovaced to 8'											
			2												
			3												
			4												
			5												
			6												
			7												
			8												
	8	31 45	9	LEAN CLAY, (GLEY1 4/10Y), trace coarse sand.							M				
	8	11 34	11		CL						M				
	8	11 22	13	Trace organic material							M				
			14												
			15												

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm SCS Engineers 2830 Dairy Drive, Madison, WI 53718	Tel: Fax:
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Boring Number MW313

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
12	11	11	11	LEAN CLAY, (GLEY1 4/10Y), trace coarse sand. <i>(continued)</i>	CL				M					
	22	22	16	Same as above but dark gray, (10YR 2/1).										
			17						M					
			18											
			19						M					
			20											
18	11	34	21						M					
			22											
24	32	34	23						M					
			24	Small sand lenses.										
18	11	28	25		M									
			26	POORLY GRADED SAND, coarse.										
4			27		W									
			28											
10	32	46	29		W									
			30											
0	13	87	31		W									
			32	End of Boring at 32 feet.										


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7o-W6rid, risin <input type="checkbox"/> S6fti6 W6dc <input type="checkbox"/> (or Borins 7o-W6n <input checked="" type="checkbox"/> OtW6 O6W6 2) FL' . 9 x L 2L 99IF9) w 0 RV R6 0w "R oM 0a "R oM 0e-tion 2FL : DF x LT 2 a		7W _____ ° _____ ' _____ h 7ons _____ ° _____ ' _____ h	7o-W6rid 7o-W6n Aect <input type="checkbox"/> x <input type="checkbox"/> 0
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									OtW6dW6d OenetrW6n	m oiftSre Vontent	7iLSid 7i6 it	O6W6i-ity IndeC	O 299	
				Blind drilled to 28' belog sroSnd fSrW6e3 Oee losf Mr ma 5" . Mr los inMr6 W6n betg een 9528' bsf3										

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OisnWSre  Air6 0V0 wnsineerf : elc
AW6

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refSlT in Mr6itSre oMetg een p"9 Wid p2H999Lor i6 zrifon6 ent Mr Sz to one yeW6Ldezendins on tue zrosrW6 Wid -ondS-t involved3 CerfonW6y identiM6le
inMr6 W6non tuif Mr6 if not intended to be be Sfed Mr W6y utuer zSzfzof3 x , : we Oee inftR-tionf Mr 6 ore inMr6 W6nonLin-Isdins g uere tue -o6 zleted Mr6
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			"D ") "8 "F 29 2" 22 2. 24 2H 2D 2)											
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			.D) .8 .F 49											

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			42												
			44												
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			48												
			4F												
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0F	"8	" "	H HD	0W6 eL6 oftly Mhe to 6 ediS6 srWh g itu trWe -oWfe srWh Wid srWelLsrWifu brog n3								a			
			H)												
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				wnd oMborins WD' belog sroSnd fSrWwe3											
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Route To: Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name Burlington Generating Station SCS#: 25221160.00		License/Permit/Monitoring Number		Boring Number MW-307B	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling		Date Drilling Started 5/10/2021		Date Drilling Completed 5/11/2021	
Unique Well No.		DNR Well ID No.		Common Well Name MW-307B	
Final Static Water Level Feet MSL		Surface Elevation 534.4 Feet MSL		Borehole Diameter 6.0 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 279,534 N, 2,300,353 E <input checked="" type="checkbox"/> C/N		Lat 40° 44' 32.8"		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E	
NE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W		Long -91° 5' 5.2"		Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington, IA	

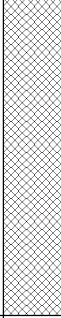



Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
S1	40		1	Hydrovacated to 2' below ground surface (bgs) before hitting compacted bottom ash - hydrovac could not break through.											
			2	BOTTOM ASH, dark gray to black, hard, consolidated, (fill).								M			
S2	58		3	FLY ASH, fine to coarse grained, black, with bottom ash throughout (fill).											
			6	Same as above but brownish gray, with trace bottom ash.								M			
S3	8		10	Same as above but mixed with dense consolidated bottom ash.											Depth to water at ~12' bgs

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm SCS Engineers 3900 Kilroy Airport Way Long Beach, CA 90806	Tel: Fax:
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Boring Number MW-307B

Page 2 of 4

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S4	40		16	FLY ASH, fine to coarse grained, black, with bottom ash throughout (fill). <i>(continued)</i> FLY ASH, fine to coarse grained, black, with bottom ash throughout (fill).										
			17											
			18											
			19											
S5	0		20	No Recovery from 20-25'.										
			21											
			22											
			23											
			24											
			25											
S6	28		27	LEAN CLAY, dark gray to black, (5Y 2.5/1), loose to dense, with trace gravel.	CL									
			28											
			29											
S7	48		30	POORLY GRADED SAND, fine to coarse grained, dark gray, (10YR 4/1), with trace clay and silt. Same as above but no clay or silt.										
			31											
			32											
			33											
			34											
			35											
S8	0		36											
			37											
			38											
			39											
			40											

Exact depth of transition from ash to clay is uncertain due to poor sample recovery.

No recovery 35 - 40' bgs

Boring Number MW-307B

Page 3 of 4

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S9	40		41	POORLY GRADED SAND, fine to coarse grained, dark gray, (10YR 4/1), with trace clay and silt. <i>(continued)</i> Same as above but gray to dark gray, (5Y 4/1).	SP									
			42											
S10	10		43	SANDY SILT, fine to coarse grained, black, (5Y 2.5/1), with pieces of wood.	ML									
			44											
S11	52		45	POORLY GRADED SAND, fine to coarse grain, dark gray, (5Y 3/1), with trace silt and gravel. Same as above but gray to dark gray, (5Y 4/1) with no silt.	SP									
			46											
S12	38		47	Same as above but gray, (5Y 5/1).	SP									
			48											
S13	50		49	Same as above with trace silt at 60'.	SP									
			50											
			51											
			52											
			53											
			54											
			55											
			56											
			57											
			58											
			59											
			60											
			61											
			62											
			63											
			64											
			65											

Boring Number MW-307B

Page 4 of 4

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S14	18		66	POORLY GRADED SAND, fine to coarse grain, dark gray, (5Y 3/1), with trace silt and gravel. <i>(continued)</i> Same as above but dark gray, (5YR 4/1).										
			67											
S15	48		68	Same as above but coarse grained and dark gray, (5YR 4/1).	SP									
			69											
			70											
			71											
			72											
S16	48		73	Same as above but dark grayish brown, (10YR 4/2).										
			74											
			75											
			76											
			77											
S17	50		78	LEAN CLAY, dark gray, (5Y 3/1), very dense with gravel and large cobbles, reacts with acid.	CL									
			79											
			80											
			81											
			82											
83														
			84											
			85	End of boring at 85' below ground surface.										

Route To: Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name Burlington Generating Station		SCS#: 25221160.00		License/Permit/Monitoring Number		Boring Number MW-313B	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling				Date Drilling Started 5/11/2021		Date Drilling Completed 5/12/2021	
Unique Well No.		DNR Well ID No.		Common Well Name MW-313B		Final Static Water Level Feet MSL	
				Surface Elevation 533.9 Feet MSL		Borehole Diameter 6.0 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 279,110 N, 2,300,905 E <input checked="" type="checkbox"/> C/N				Lat 40° 44' 28.5"		Local Grid Location	
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W				Long -91° 6' 58.2"		<input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington, IA			

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			1-7	Hydrovacced to 8' below ground surface (bgs).										
S1	16		8-9	LEAN CLAY, gray to olive gray, (5Y 3/2), with gravel and trace roots.	CL				2.5	W				
S2	52		12-13	SILT, gray to dark gray, (10YR 4/1).	ML				2.0	W				
			13-14	LEAN CLAY, gray to olive gray, (5Y 3/2), with trace gravel, roots, and sticks.	CL									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm SCS Engineers 3900 Kilroy Airport Way Long Beach, CA 90806	Tel: Fax:
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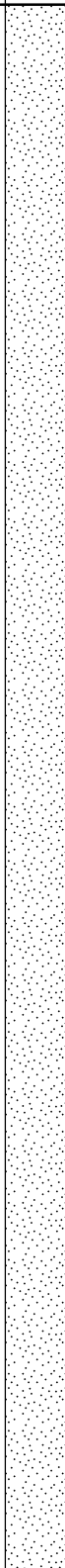

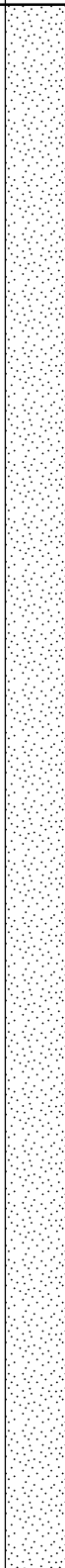

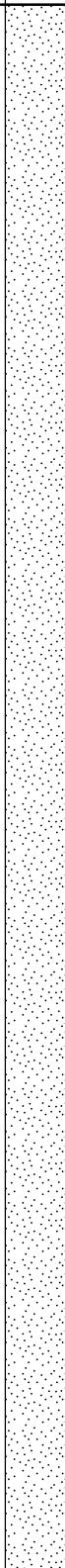

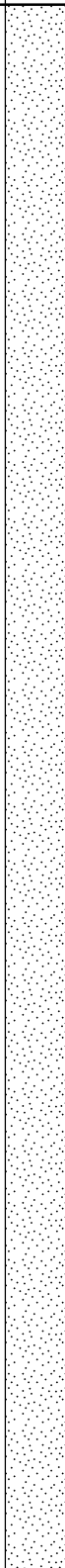

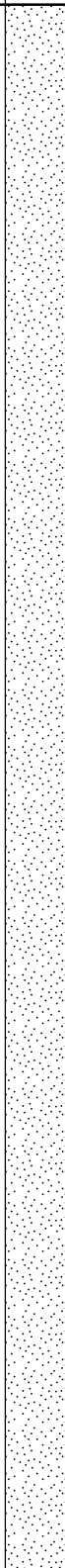

Boring Number MW-313B

Page 2 of 4

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
S3	54		16	LEAN CLAY, gray to olive gray, (5Y 3/2,) with trace gravel, roots, and sticks. <i>(continued)</i>	CL										
			17	Same as above but black to very black, (5Y 2.5/1).										1.0	W
			18												
			19												
			20												
	21														
S4	58		22	SILT, very dark gray, (5Y 3/1), with trace sand.	ML										
			23	0.75										W	
			24												
			25												
			26												
S5	52		27	POORLY GRADED SAND, fine to coarse grained, gray to dark gray, (5Y 4/1).	SP										
			28	W											
			29												
			30												
			31												
S6	16		32	Same as above but more fine than coarse grained.	SP										
			33	W											
			34												
			35												
			36												
S7	19		37	Same as above but with trace subrounded to subangular gravel.	SP										
			38											W	
			39												
			40												

Boring Number MW-313B

Page 3 of 4

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
S8	46		41	POORLY GRADED SAND, fine to coarse grained, gray to dark gray, (5Y 4/1). (continued)											
			42												W
			43												
			44												
			45												
S9	33		46												
			47												W
			48												
			49												
			50												
S10	30		51		SP										
			52												W
			53												
			54												
			55												
S11	35		55	Same as above but grayish brown, (2.5Y 5/2).											
			56												
			57												
			58												W
			59												
S12	54		60												
			61												
			62												
			63												W
			64												
	65														

Boring Number MW-313B

Page 4 of 4

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S13	0		66	POORLY GRADED SAND, fine to coarse grained, gray to dark gray, (5Y 4/1). (continued)	SP					W				
			67											
S14	56		68	Same as above but with more gravel.										
			69											
			70	LEAN CLAY, gray, (5Y 3/1), very dense, with gravel and cobbles, reacts with acid.	CL				4.5+	W				
			71											
			72											
73	End of boring at 75' below ground surface.													
74														
			75											

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Burlington Generating Station SCS#: 25221160.00		License/Permit/Monitoring Number		Boring Number MW-314	
Boring Drilled By: Name of crew chief (first, last) and Firm Ryan Peterson Terracon Consultants Inc.			Date Drilling Started 2/25/2022		Date Drilling Completed 2/25/2022
Unique Well No.	DNR Well ID No.	Common Well Name MW-314	Final Static Water Level 519.2 Feet MSL	Surface Elevation 524.1 Feet MSL	Borehole Diameter 8.3 in
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 274,984 N, 2,299,795 E <input checked="" type="checkbox"/> C/N S 1/4 of SW 1/4 of Section 32, T 69 N, R 2 W			Lat _____ " _____ "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	





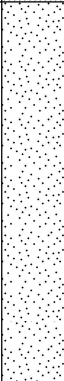

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S1	12		1	LEAN CLAY, brown, with silt and trace sand.	CL									
			2	Same as above but with trace organic.										
S2	14		3	SANDY LEAN CLAY, dark brown, with silt and trace organic.	CL									
			4											
S3	8		5	LEAN CLAY, gray brown.	CL									
			6											
S4	14		7	FAT CLAY, gray, with silt, trace sand, and organic.	CH									
			8											
S5	14		9	LEAN CLAY, gray, with silt, trace sand, and roots.	CL									
			10											
S6	16		11	Same as above but gray brown with trace gravel.	CL									
			12											
S7	16		13											
			14											
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm SCS Engineers 2830 Dairy Drive, Madison, WI 53718 608-228-2830	Tel: Fax:
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Boring Number MW-314

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S8	14		14	LEAN CLAY, gray, with silt, trace sand, and roots. <i>(continued)</i>	CL					W				
S9	14		16-17	SANDY LEAN CLAY, fine to medium grained sand, gray brown, with trace gravel.	CL					W				
S10	16		18-20	POORLY GRADED SAND, fine to medium grained, gray brown. Same as above but fine to coarse grained.	SP					W				
S11	18		21							W				
S12	24		22-23							W				
			24	End of boring at 24' below ground surface.										



IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-301

Dates Started: 2/29/16 Date Completed: 2/29/16

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): _____	Name & Address of Construction Company: _____
Specify corner of site: <u>SE of Parcel 16-29-300-007</u>	<u>Direct Push Analytical Corp</u>
Distance & direction along boundary: <u>119' W</u>	<u>4N969 Old LaFox Road, Unit E</u>
Distance & direction from boundary to wall: <u>356' N</u>	<u>St. Charles, IL 60175</u>
Elevations (± 0.01 ft MSL): _____	Name of Driller: <u>Kevin Collins</u>
Ground Surface: <u>535.98</u>	Drilling Method: <u>Direct Push/4.25" HSA</u>
Top of protective casing: <u>538.75</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>538.38</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Macro Core</u>
Benchmark description: _____	Depth of Boring: <u>29.50 ft bgs</u>

C. MONITORING WELL INSTALLATION	
Casing material: _____ <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: _____ <u>24.5</u>	Volume: <u>4.4 cubic ft</u>
Outside casing diameter: _____ <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: _____ <u>2"</u>	Material: _____
Casing joint type: _____ <u>threaded</u>	Placement method: _____
Casing/screen joint type: _____ <u>threaded</u>	Volume: _____
Screen material: _____ <u>PVC</u>	Surface seal design: _____
Screen opening size: _____ <u>0.010"</u>	Material of protective casing: <u>Steel 4 inch</u>
Screen length: _____ <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: _____ <u>29.5 ft</u>	Protective cap: _____
Filter Pack: _____	Material: <u>Steel, vented</u>
Material: _____ <u>NSF R.W Sidley Inc.</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: _____ <u>10/20</u>	Well Cap: _____
Volume: _____ <u>2.25 cubic ft</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Black Hills Bentonite 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)	
Water level: <u>15.47 ft</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 45 gallons pumped.</u>	
Average depth of frostline: <u>3.5'</u>	

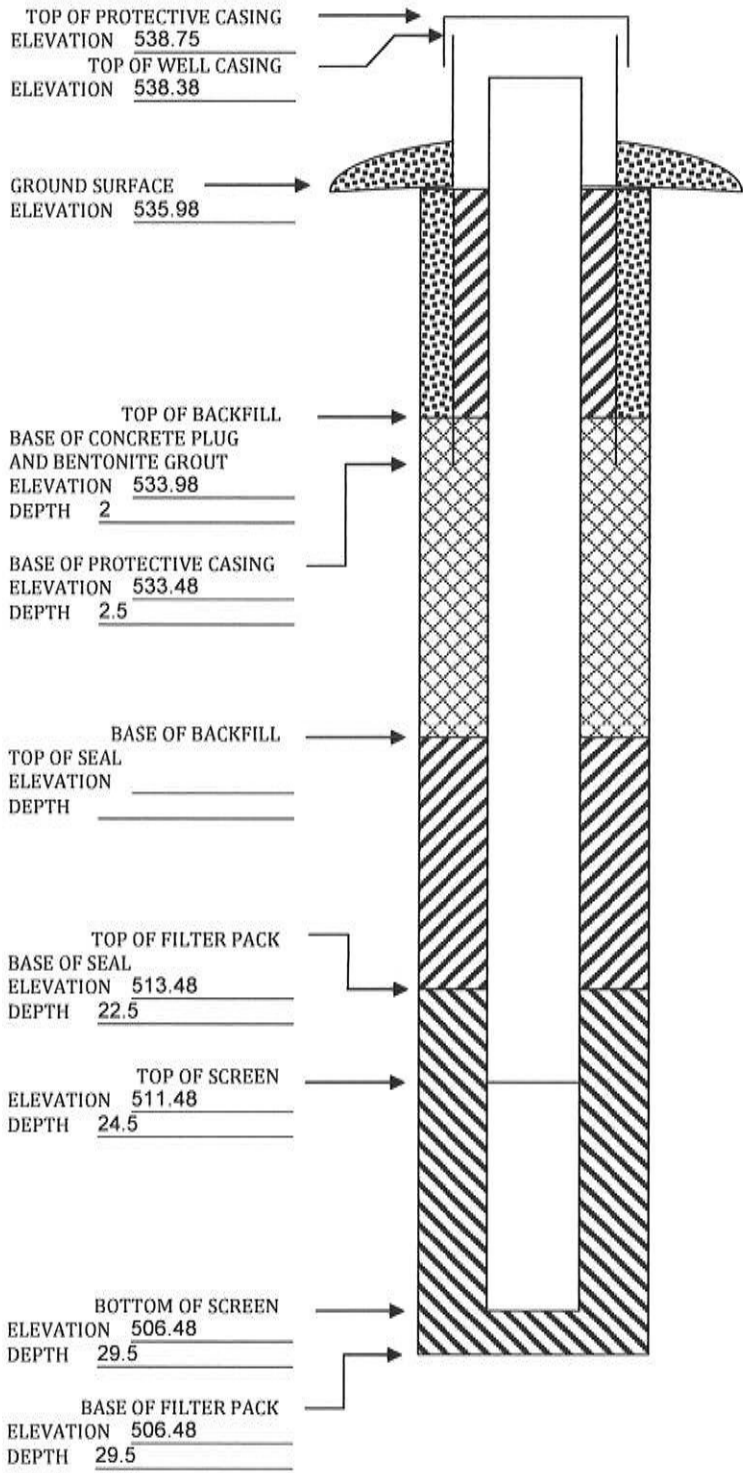
Attachments: Driller's log, Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

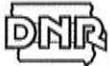
Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-302

Dates Started: 2/29/16 Date Completed: 2/29/16

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): _____	Name & Address of Construction Company: _____
Specify corner of site: <u>SE of Parcel 16-29-300-008</u>	<u>Direct Push Analytical Corp</u>
Distance & direction along boundary: <u>315' W</u>	<u>4N969 Old LaFox Road, Unit E</u>
Distance & direction from boundary to wall: <u>34'N</u>	<u>St. Charles, IL 60175</u>
Elevations (± 0.01 ft MSL): _____	Name of Driller: <u>Kevin Collins</u>
Ground Surface: <u>533.24</u>	Drilling Method: <u>Direct Push/4.25" HSA</u>
Top of protective casing: <u>535.98</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>535.69</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Macro Core</u>
Benchmark description: _____	Depth of Boring: <u>28 ft bgs</u>

C. MONITORING WELL INSTALLATION	
Casing material: <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: <u>22.5</u>	Volume: <u>2.7 cubic ft</u>
Outside casing diameter: <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: <u>2"</u>	Material: _____
Casing joint type: <u>threaded</u>	Placement method: _____
Casing/screen joint type: <u>threaded</u>	Volume: _____
Screen material: <u>PVC</u>	Surface seal design: _____
Screen opening size: <u>0.010"</u>	Material of protective casing: <u>Steel 4 inch</u>
Screen length: <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: <u>27.5</u>	Protective cap: _____
Filter Pack: _____	Material: <u>Steel, vented</u>
Material: <u>NSF R.W Sidley Inc.</u>	Vented: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: <u>10/20</u>	Well Cap: _____
Volume: <u>1.25 cubic ft</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Black Hills Bentonite 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)	
Water level: <u>12.70 ft</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 68.5 gallons pumped.</u>	
Average depth of frostline: <u>3.5</u>	

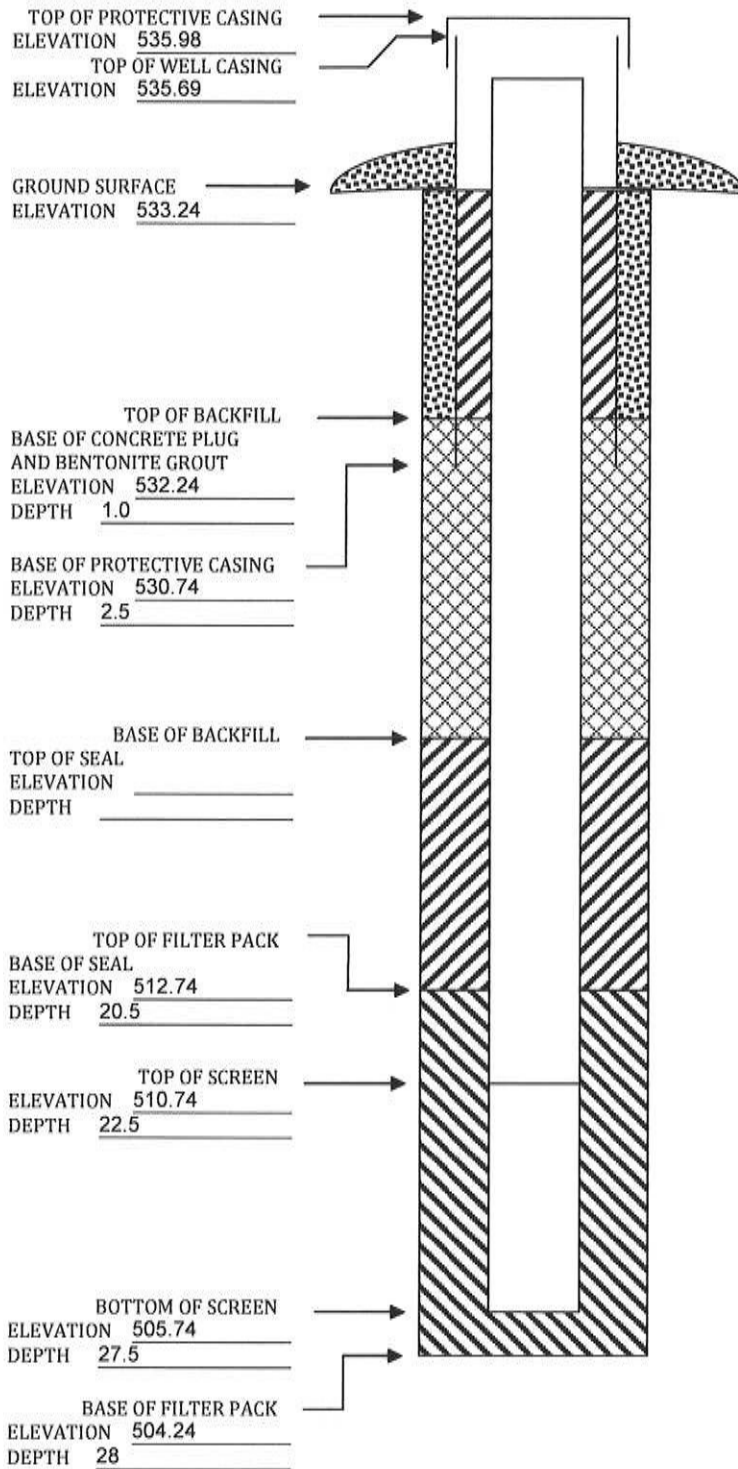
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. _____
Well or Piezometer No. MW-302A Dates Started 6/30/2020 Date Completed 7/1/2020

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site South East Corner Distance and direction along boundary _____
Distance and direction from boundary to surface monitoring well _____
Elevation (+0.01 ft. MSL) _____
Ground Surface 533.51' Top of protective casing 536.28'
Top of well casing 535.89' Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Roberts Environmental Drilling
Address 1107 S Mulberry St City, State, Zip Code Millstadt, IL 62260
Name of driller Jeff Crank
Drilling method Hollow Stem Auger Drilling fluid Water Bore Hole diameter 4.25"
Soil sampling method Split spoon Depth of boring 61'

C. MONITORING WELL INSTALLATION

Casing material Sch. 40 PVC Placement method Pumped
Length of casing 62.5' Volume 8, 50lbs bags (120 gallons of grout)
Outside casing diameter 2.4" Backfill (if different from seal): _____
Inside casing diameter 2" Material 3/8" Bentonite chips
Casing joint type Threaded Placement method Poured
Casing/screen joint type Threaded Volume 3, 50lbs bags
Screen material Sch. 40 PVC Surface seal design: Stick-up
Screen opening size 0.01 Material of protective casing: steel
Screen length 5' Material of grout between
Depth of Well 60' protective casing and well casing: Sand
Filter Pack: _____ Protective cap: _____
Material Sand (FilterSil) Material Steel
Grain Size 18-23 Vented?: Y N Locking?: Y N
Volume 2, 50lbs bags Well cap: Lockable expanding well plug
Seal (minimum 3 ft. length above filter pack): _____ Material Plastic
Material Bentonite grout Vented?: Y N

D. GROUNDWATER MEASUREMENT (+0.01 foot below top of inner well casing)

Water level 14.25' Stabilization time < 5 min
Well development method Surged with bailer and pumped
Average depth of frost line 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature *Jeff Crank* Certification # 8515 Date 9-16-20

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

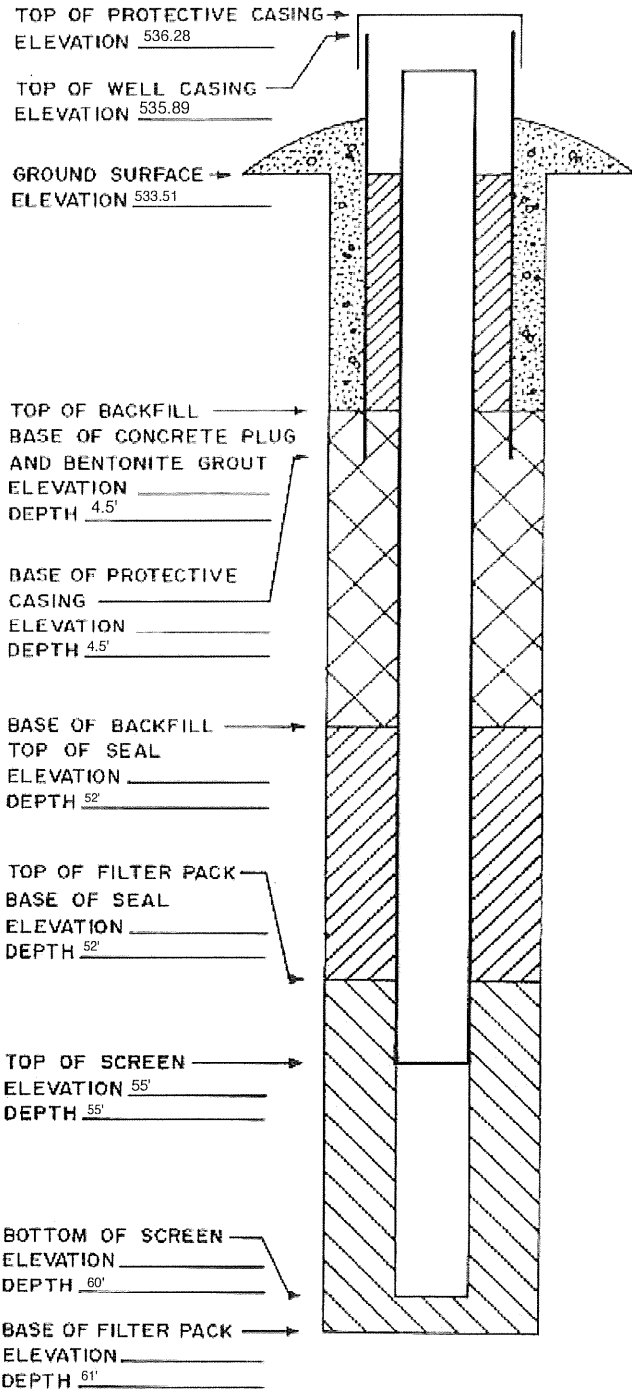
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

09/2017 cmc

DNR Form 542-1277

ELEVATIONS: ± 0.01 FT. MSL
DEPTHS: ± 0.1 FT. FROM
GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-303

Dates Started: 12/15/15 Date Completed: 12/15/15

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): _____ Specify corner of site: <u>SE of Parcel 16-29-300-008</u> Distance & direction along boundary: <u>89' W</u> Distance & direction from boundary to wall: <u>139' N</u> Elevations (± 0.01 ft MSL): _____ Ground Surface: <u>531.01</u> Top of protective casing: <u>534.08</u> Top of well casing: _____ <u>533.6</u> Benchmark elevation: _____ Benchmark description: _____	Name & Address of Construction Company: <u>Cascade Drilling, LP</u> <u>301 Alderson St</u> <u>Schofield, WI 54476</u> Name of Driller: <u>Mike Mueller</u> Drilling Method: <u>4.25" HSA</u> Drilling Fluid: <u>NA</u> Bore Hole Diameter: <u>8.5 inch</u> Soil Sampling Method: <u>Spoon</u> Depth of Boring: <u>27 ft</u>

C. MONITORING WELL INSTALLATION	
Casing material: _____ <u>PVC</u> Length of casing: _____ <u>21 ft</u> Outside casing diameter: _____ <u>2.38"</u> Inside casing diameter: _____ <u>2"</u> Casing joint type: _____ <u>threaded</u> Casing/screen joint type: _____ <u>threaded</u> Screen material: _____ <u>PVC</u> Screen opening size: _____ <u>0.010"</u> Screen length: _____ <u>5 ft</u> Depth of well: _____ <u>26 ft</u> Filter Pack: _____ Material: _____ <u>Red Flint</u> Grain size: _____ <u>#40</u> Volume: _____ <u>2.5 cubic ft</u> Seal (minimum 3 ft length above filter pack): _____ Material: <u>Hole Plug 3/8 inch</u>	Placement method: <u>Gravity</u> Volume: <u>7.4 cubic ft</u> Backfill (if different from seal): _____ Material: _____ Placement method: _____ Volume: _____ Surface seal design: _____ Material of protective casing: <u>Steel 6 inch</u> Material of grout between protective casing and well casing: <u>sand</u> Protective cap: _____ Material: <u>steel, vented</u> Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Well Cap: _____ Material: <u>PVC</u> Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)	
Water level: <u>10.55 ft</u> Well development method: <u>Surged with block and pumped to reduce turbidity. 147 gallons pumped.</u> Average depth of frostline: <u>3.5'</u>	Stabilization Time: <u><5 minutes</u>

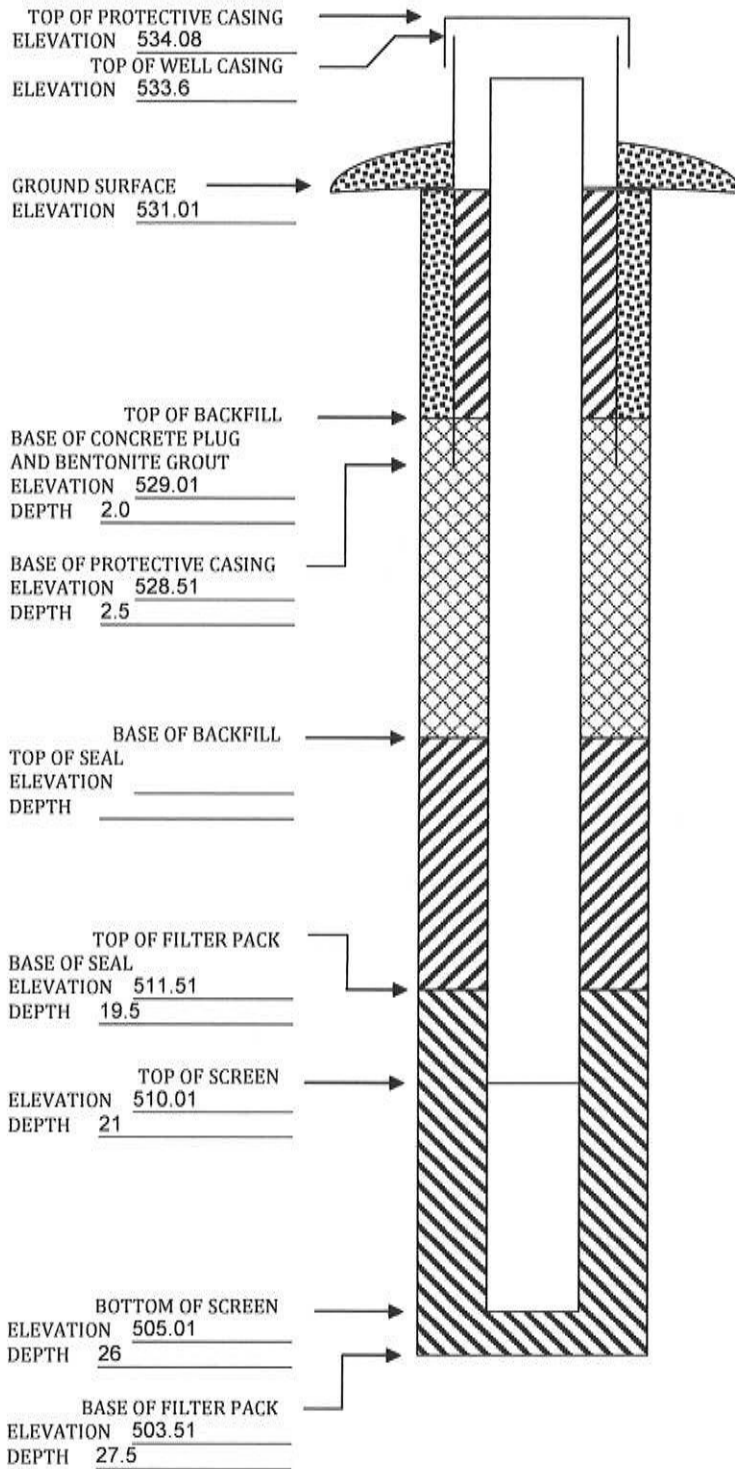
Attachments: Driller's log, Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-304

Dates Started: 12/15/15 Date Completed: 12/15/15

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (\pm 0.5 ft): _____	Name & Address of Construction Company: _____
Specify corner of site: <u>SE of Parcel 16-29-300-008</u>	<u>Cascade Drilling, LP</u>
Distance & direction along boundary: <u>61' W</u>	<u>301 Alderson St</u>
Distance & direction from boundary to wall: <u>558' N</u>	<u>Schofield, WI 54476</u>
Elevations (\pm 0.01 ft MSL): _____	Name of Driller: <u>Mike Mueller</u>
Ground Surface: <u>532.15</u>	Drilling Method: <u>4.25" HSA</u>
Top of protective casing: <u>535.00</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>534.42</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Spoon</u>
Benchmark description: _____	Depth of Boring: <u>27 ft</u>

C. MONITORING WELL INSTALLATION	
Casing material: <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: <u>18 ft</u>	Volume: <u>4 cubic ft</u>
Outside casing diameter: <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: <u>2"</u>	Material: _____
Casing joint type: <u>threaded</u>	Placement method: _____
Casing/screen joint type: <u>threaded</u>	Volume: _____
Screen material: <u>PVC</u>	Surface seal design: _____
Screen opening size: <u>0.010"</u>	Material of protective casing: <u>Steel 6 inch</u>
Screen length: <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: <u>23 ft</u>	Protective cap: _____
Filter Pack: _____	Material: <u>steel, vented</u>
Material: <u>Red Flint</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: <u>#40</u>	Well Cap: _____
Volume: <u>2.0 cubic ft</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Hole Plug 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (\pm 0.01 ft below top of inner well casing)	
Water level: <u>11.34 ft</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 136 gallons pumped.</u>	
Average depth of frostline: <u>3.5'</u>	

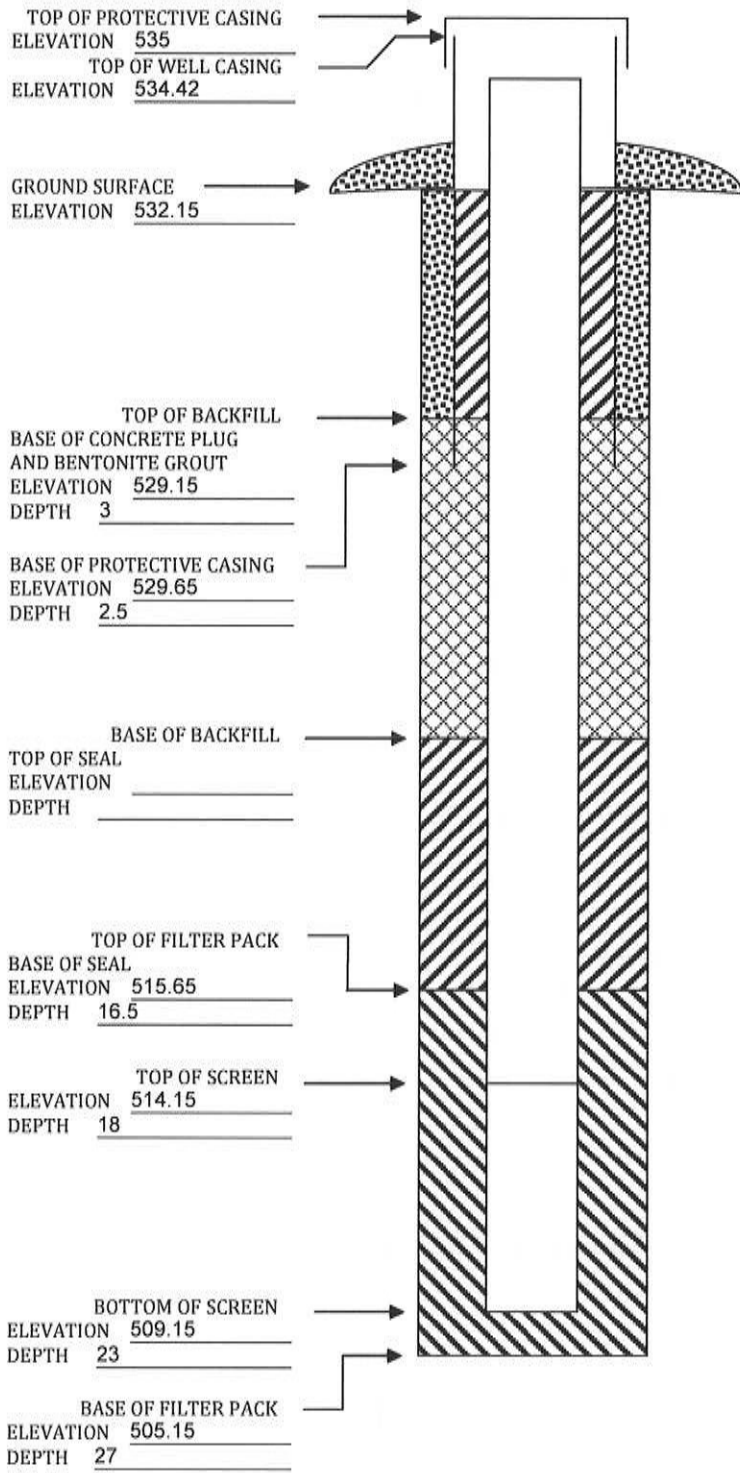
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-305

Dates Started: 12/17/15 Date Completed: 12/17/15

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (\pm 0.5 ft): _____	Name & Address of Construction Company: _____
Specify corner of site: <u>NW of Parcel 16-29-300-006</u>	<u>Cascade Drilling, LP</u>
Distance & direction along boundary: <u>475' S</u>	<u>301 Alderson St</u>
Distance & direction from boundary to wall: <u>297' E</u>	<u>Schofield, WI 54476</u>
Elevations (\pm 0.01 ft MSL): _____	Name of Driller: <u>Mike Mueller</u>
Ground Surface: <u>530.85</u>	Drilling Method: <u>4.25" HSA</u>
Top of protective casing: <u>533.93</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>533.28</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Spoon</u>
Benchmark description: _____	Depth of Boring: <u>27.5 ft</u>

C. MONITORING WELL INSTALLATION	
Casing material: _____ <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: _____	Volume: <u>5.4 cubic ft</u>
Outside casing diameter: _____ <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: _____ <u>2"</u>	Material: _____
Casing joint type: _____ <u>threaded</u>	Placement method: _____
Casing/screen joint type: _____ <u>threaded</u>	Volume: _____
Screen material: _____ <u>PVC</u>	Surface seal design: _____
Screen opening size: _____ <u>0.010"</u>	Material of protective casing: <u>Steel 6 inch</u>
Screen length: _____ <u>5</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: _____ <u>32</u>	Protective cap: _____
Filter Pack: _____	Material: <u>Steel, vented</u>
Material: _____ <u>Red Flint</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: _____ <u>#40</u>	Well Cap: _____
Volume: _____ <u>2.0 cubic ft</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Hole Plug 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (\pm 0.01 ft below top of inner well casing)	
Water level: <u>10.04 ft</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 184 gallons pumped.</u>	
Average depth of frostline: <u>3.5'</u>	

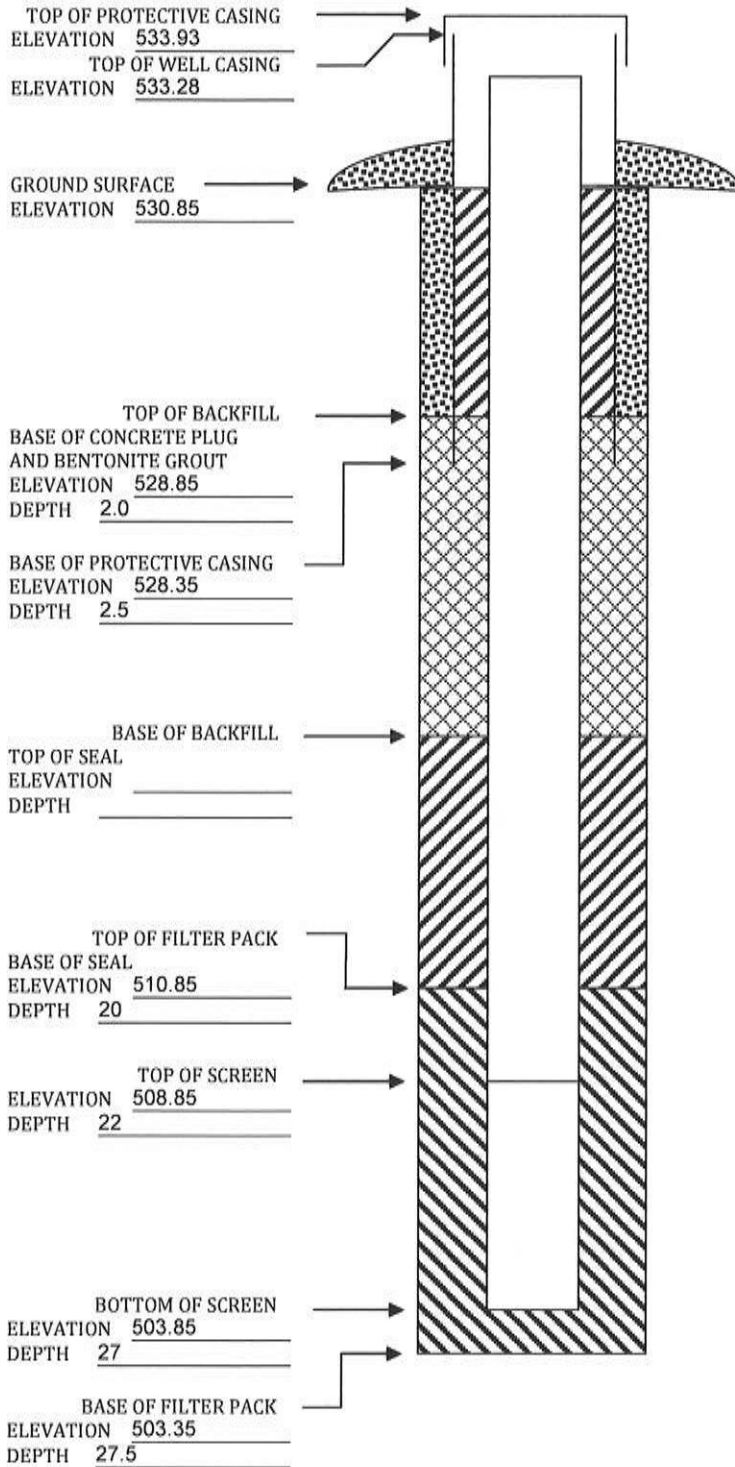
Attachments: Driller's log, Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-306

Dates Started: 12/16/15 Date Completed: 12/17/15

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): Specify corner of site: <u>SW of Parcel 16-29-300-006</u>	Name & Address of Construction Company: <u>Cascade Drilling, LP</u>
Distance & direction along boundary: <u>328' N</u>	<u>301 Alderson St</u>
Distance & direction from boundary to wall: <u>210' E</u>	<u>Schofield, WI 54476</u>
Elevations (± 0.01 ft MSL):	Name of Driller: <u>Mike Mueller</u>
Ground Surface: <u>534.51</u>	Drilling Method: <u>4.25" HSA</u>
Top of protective casing: <u>537.44</u>	Drilling Fluid: <u>NA</u>
Top of well casing: <u>536.92</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Spoon</u>
Benchmark description: _____	Depth of Boring: <u>32.5 ft</u>

C. MONITORING WELL INSTALLATION	
Casing material: <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: <u>27 ft</u>	Volume: <u>6.7 cubic ft.</u>
Outside casing diameter: <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: <u>2"</u>	Material: _____
Casing joint type: <u>threaded</u>	Placement method: _____
Casing/screen joint type: <u>threaded</u>	Volume: _____
Screen material: <u>PVC</u>	Surface seal design: _____
Screen opening size: <u>0.010"</u>	Material of protective casing: <u>Steel 6 inch</u>
Screen length: <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: <u>32 ft</u>	Protective cap: _____
Filter Pack: _____	Material: <u>Steel, vented</u>
Material: <u>Red Flint</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: <u>#40</u>	Well Cap: _____
Volume: <u>2.5 cubic ft</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Hole Plug 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)	
Water level: <u>13.65</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 120 gallons pumped.</u>	
Average depth of frostline: <u>3.5</u>	

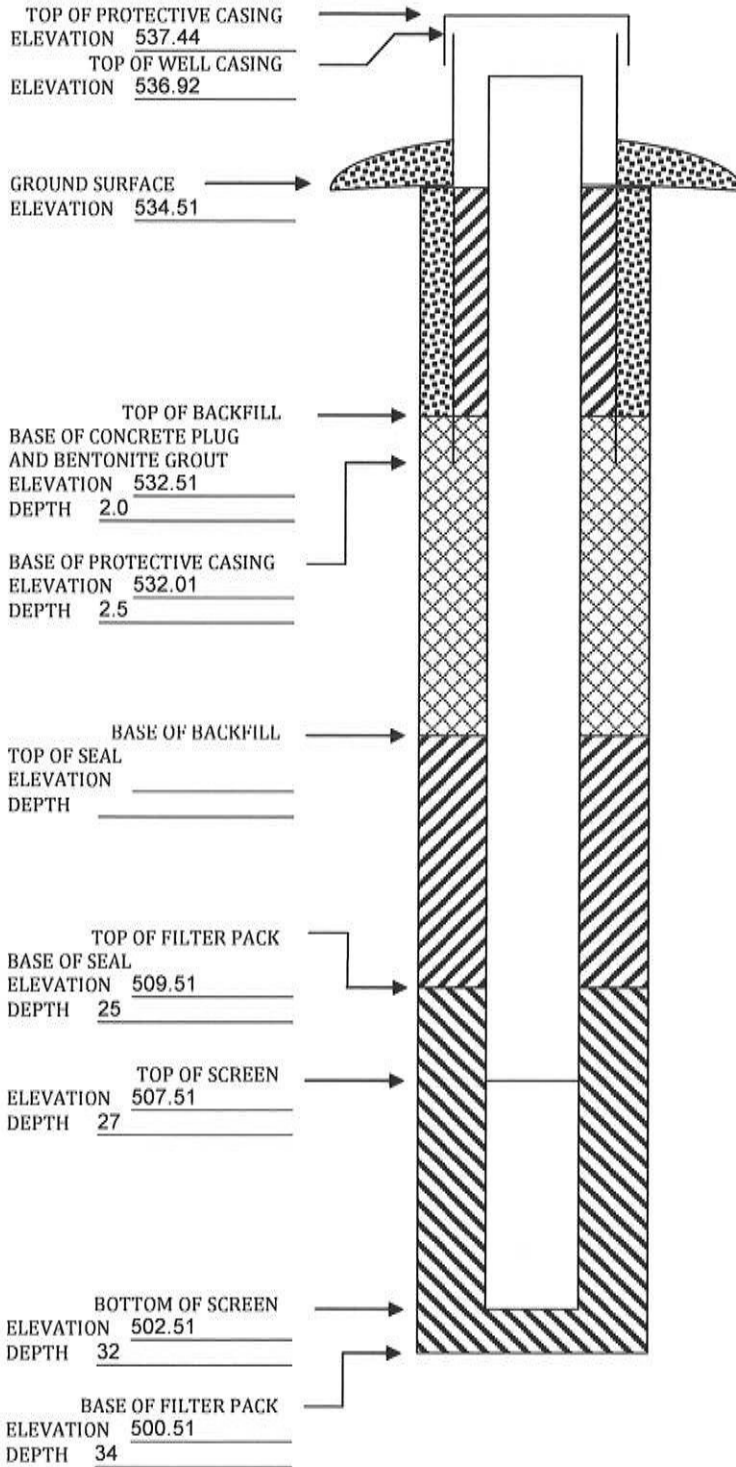
Attachments: Driller's log, Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-307

Dates Started: 12/16/15 Date Completed: 12/16/15

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (\pm 0.5 ft): _____	Name & Address of Construction Company: _____
Specify corner of site: <u>SW of Parcel 16-29-300-006</u>	<u>Cascade Drilling, LP</u>
Distance & direction along boundary: <u>201' N</u>	<u>301 Alderson St</u>
Distance & direction from boundary to wall: <u>177' E</u>	<u>Schofield, WI 54476</u>
Elevations (\pm 0.01 ft MSL): _____	Name of Driller: <u>Mike Mueller</u>
Ground Surface: <u>534.32</u>	Drilling Method: <u>4.25" HSA</u>
Top of protective casing: <u>537.54</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>536.96</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Spoon</u>
Benchmark description: _____	Depth of Boring: <u>27 ft</u>

C. MONITORING WELL INSTALLATION	
Casing material: _____ <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: _____ <u>21 ft</u>	Volume: <u>6 cubic ft.</u>
Outside casing diameter: _____ <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: _____ <u>2"</u>	Material: _____
Casing joint type: _____ <u>threaded</u>	Placement method: _____
Casing/screen joint type: _____ <u>threaded</u>	Volume: _____
Screen material: _____ <u>PVC</u>	Surface seal design: _____
Screen opening size: _____ <u>0.010"</u>	Material of protective casing: <u>Steel 6 inch</u>
Screen length: _____ <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: _____ <u>27 ft</u>	Protective cap: _____
Filter Pack: _____	Material: <u>Steel, vented</u>
Material: _____ <u>Red Flint</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: _____ <u>#40</u>	Well Cap: _____
Volume: _____ <u>2 cubic ft</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Hole Plug 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (\pm 0.01 ft below top of inner well casing)	
Water level: <u>13.34 ft</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 137 gallons pumped.</u>	
Average depth of frostline: <u>3.5'</u>	

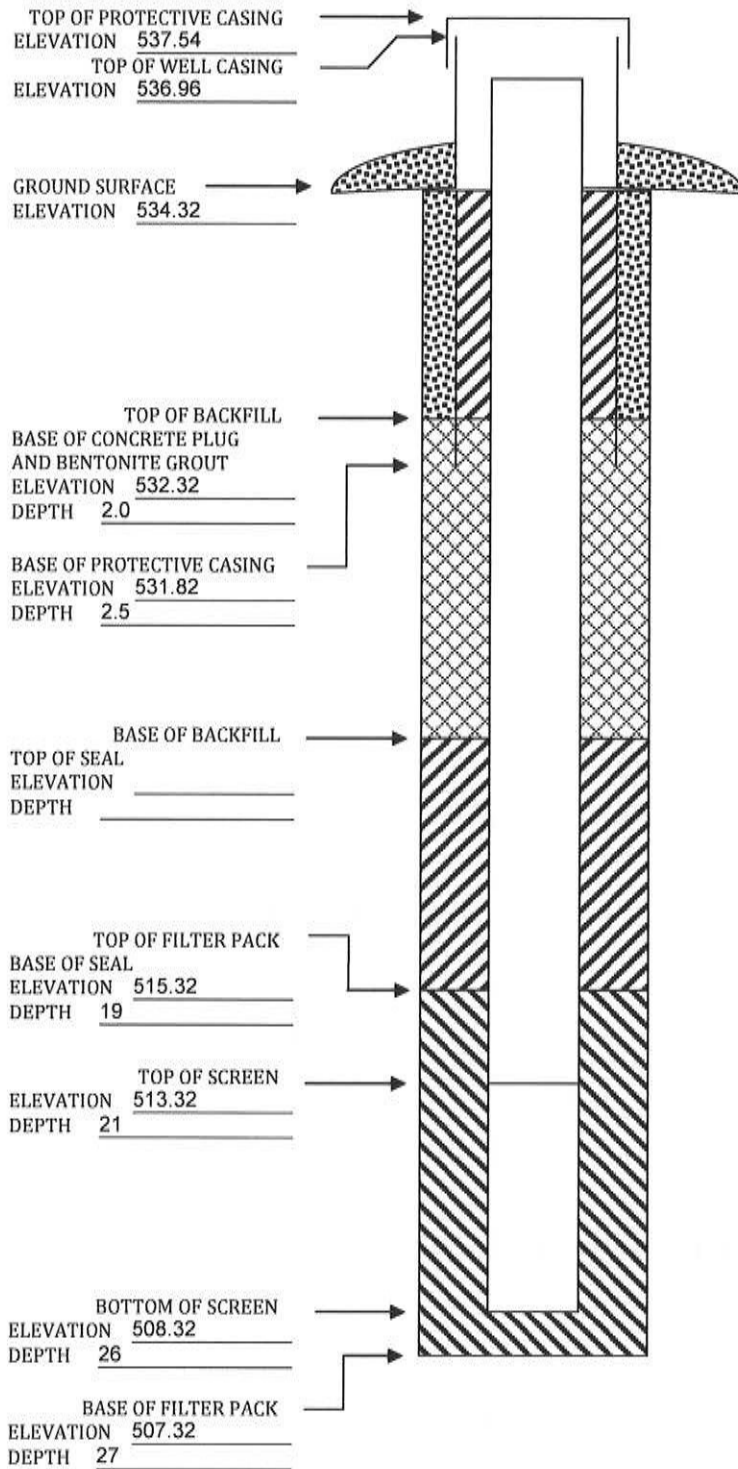
Attachments: Driller's log, Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. _____
Well or Piezometer No. MW-307A Dates Started 6/24/2020 Date Completed 7/1/2020

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site SW of Parcel 16-29-300-00 Distance and direction along boundary 201' N
Distance and direction from boundary to surface monitoring well 177' E
Elevation (+0.01 ft. MSL) _____
Ground Surface 533.94' Top of protective casing 536.67'
Top of well casing 536.22' Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Roberts Environmental Drilling
Address 1107 S Mulberry St City, State, Zip Code Millstadt, IL 62260
Name of driller Jeff Crank
Drilling method Hollow Stem Auger Drilling fluid Water Bore Hole diameter 4.25"
Soil sampling method Split spoon Depth of boring 60'

C. MONITORING WELL INSTALLATION

Casing material <u>Sch. 40 PVC</u>	Placement method <u>Pumped</u>
Length of casing <u>61.92'</u>	Volume <u>7, 50lbs bags (~115 gallons of grout)</u>
Outside casing diameter <u>2.4"</u>	Backfill (if different from seal): _____
Inside casing diameter <u>2"</u>	Material <u>3/8" Bentonite chips</u>
Casing joint type <u>Threaded</u>	Placement method <u>Poured</u>
Casing/screen joint type <u>Threaded</u>	Volume <u>5, 50lbs bags</u>
Screen material <u>Sch. 40 PVC</u>	Surface seal design: <u>Stick-up</u>
Screen opening size <u>0.01</u>	Material of protective casing: <u>steel</u>
Screen length <u>5'</u>	Material of grout between protective casing and well casing: <u>Sand</u>
Depth of Well <u>59'</u>	Protective cap: _____
Filter Pack: _____	Material <u>Steel</u>
Material <u>Sand (FilterSil)</u>	Vented?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Locking?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Grain Size <u>18-23</u>	Well cap: <u>Lockable expanding well plug</u>
Volume <u>3, 50lbs bags</u>	Material <u>Plastic</u>
Seal (minimum 3 ft. length above filter pack): _____	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Material <u>Bentonite grout</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 foot below top of inner well casing)

Water level 14.37' Stabilization time <5 min
Well development method Surged with bailer and pumped
Average depth of frost line 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature *Jeff Crank* Certification # 8515 Date 9-16-20

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

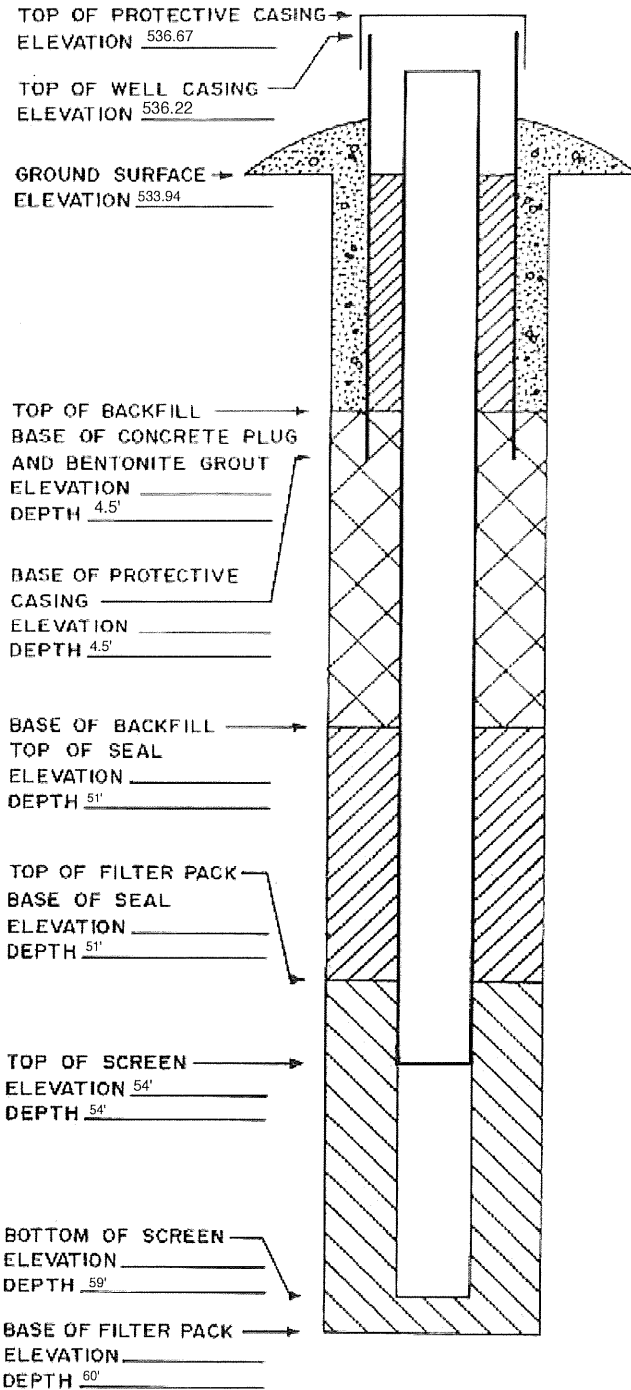
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

09/2017 cmc

DNR Form 542-1277

ELEVATIONS: ± 0.01 FT. MSL
DEPTHS: ± 0.1 FT. FROM
GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-308

Dates Started: 12/15/15 Date Completed: 12/16/15

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): Specify corner of site: <u>SW of Parcel 16-29-300-006</u>	Name & Address of Construction Company: <u>Cascade Drilling, LP</u>
Distance & direction along boundary: <u>33' N</u>	<u>301 Alderson St</u>
Distance & direction from boundary to wall: <u>130' E</u>	<u>Schofield, WI 54476</u>
Elevations (± 0.01 ft MSL):	Name of Driller: <u>Mike Mueller</u>
Ground Surface: <u>534.89</u>	Drilling Method: <u>4.25" HSA</u>
Top of protective casing: <u>537.74</u>	Drilling Fluid: <u>NA</u>
Top of well casing: <u>537.20</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Spoon</u>
Benchmark description: _____	Depth of Boring: <u>29.5 ft</u>

C. MONITORING WELL INSTALLATION	
Casing material: <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: <u>23 ft</u>	Volume: <u>6 cubic ft.</u>
Outside casing diameter: <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: <u>2"</u>	Material: _____
Casing joint type: <u>threaded</u>	Placement method: _____
Casing/screen joint type: <u>threaded</u>	Volume: _____
Screen material: <u>PVC</u>	Surface seal design: _____
Screen opening size: <u>0.010"</u>	Material of protective casing: <u>Steel 6 inch</u>
Screen length: <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: <u>28 ft</u>	Protective cap: _____
Filter Pack: _____	Material: <u>steel, vented</u>
Material: <u>Red Flint</u>	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Locking: <input type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: <u>#40</u>	Well Cap: _____
Volume: <u>2 cubic ft.</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Hole Plug 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)	
Water level: <u>13.95</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 151 gallons pumped.</u>	
Average depth of frostline: <u>3.5'</u>	

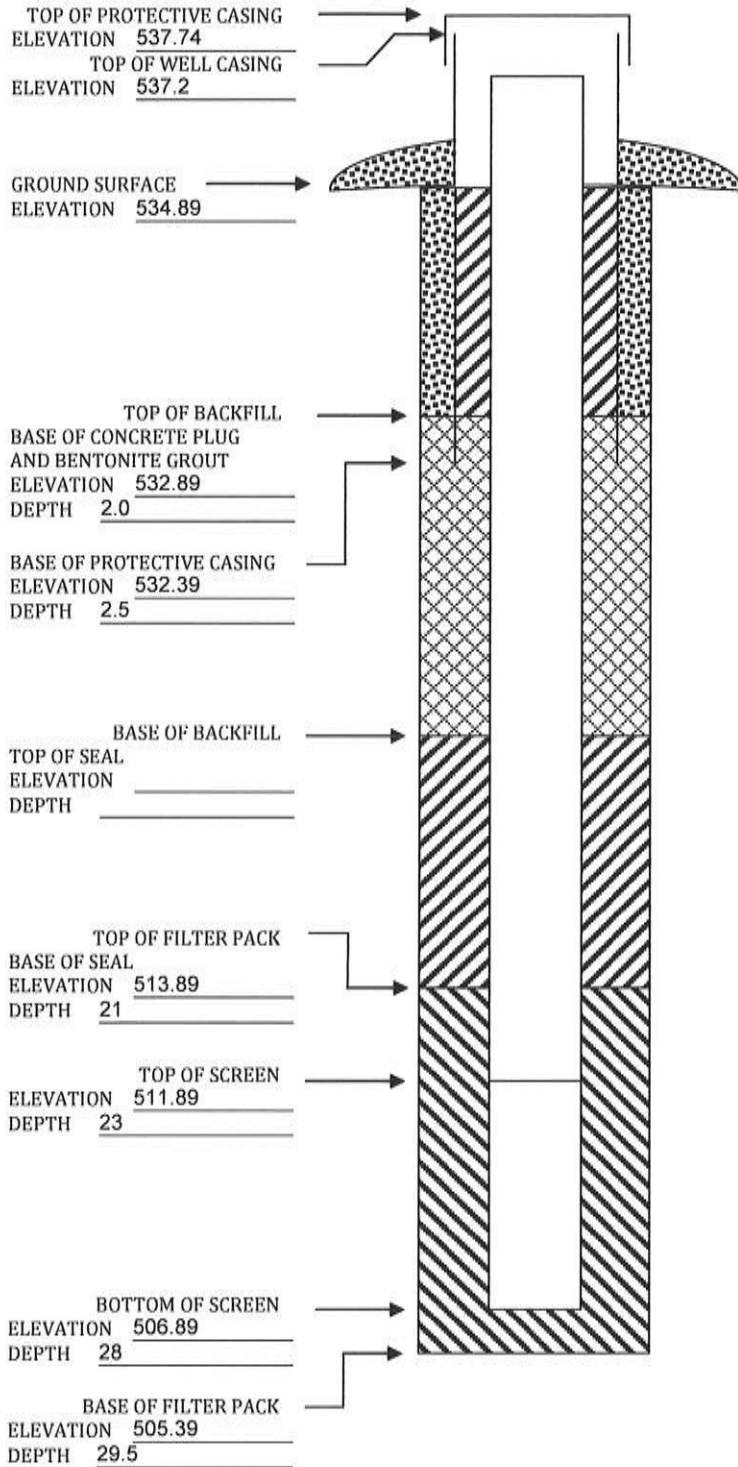
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-309

Dates Started: 3/1/16 Date Completed: 3/1/16

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): Specify corner of site: <u>NE of Parcel 16-29-300-007</u> Distance & direction along boundary: <u>141' S</u> Distance & direction from boundary to wall: <u>123' W</u>	Name & Address of Construction Company: <u>Direct Push Analytical Corp</u> <u>4N969 Old LaFox Road, Unit E</u> <u>St. Charles, IL 60175</u>
Elevations (± 0.01 ft MSL): Ground Surface: <u>534.11</u> Top of protective casing: <u>536.70</u> Top of well casing: _____ <u>536.42</u> Benchmark elevation: _____ Benchmark description: _____	Name of Driller: <u>Kevin Collins</u> Drilling Method: <u>Direct Push/4.25" HSA</u> Drilling Fluid: <u>NA</u> Bore Hole Diameter: <u>8.5 inch</u> Soil Sampling Method: <u>Macro Core</u> Depth of Boring: <u>25 ft bgs</u>

C. MONITORING WELL INSTALLATION	
Casing material: <u>PVC</u> Length of casing: <u>20</u> Outside casing diameter: <u>2.38"</u> Inside casing diameter: <u>2"</u> Casing joint type: <u>threaded</u> Casing/screen joint type: <u>threaded</u> Screen material: <u>PVC with slip cap and 4 stainless screws</u> Screen opening size: <u>0.010"</u> Screen length: <u>5 ft</u> Depth of well: <u>25</u> Filter Pack: Material: <u>NSF R.W Sidley Inc.</u> Grain size: <u>10/20</u> Volume: <u>1.50 cubic ft.</u> Seal (minimum 3 ft length above filter pack): Material: <u>Black Hills Bentonite 3/8 inch</u>	Placement method: <u>Gravity</u> Volume: <u>2 cubic ft.</u> Backfill (if different from seal): Material: <u>3/8 Hole Plug</u> Placement method: <u>Gravity</u> Volume: _____ Surface seal design: Material of protective casing: <u>Steel 4 inch</u> Material of grout between protective casing and well casing: <u>sand</u> Protective cap: Material: <u>steel, vented</u> Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Well Cap: Material: <u>PVC</u> Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)
Water level: <u>13.18</u> Stabilization Time: <u><5 minutes</u> Well development method: <u>Surged with block and pumped to reduce turbidity. 140 gallons pumped.</u> Average depth of frostline: _____

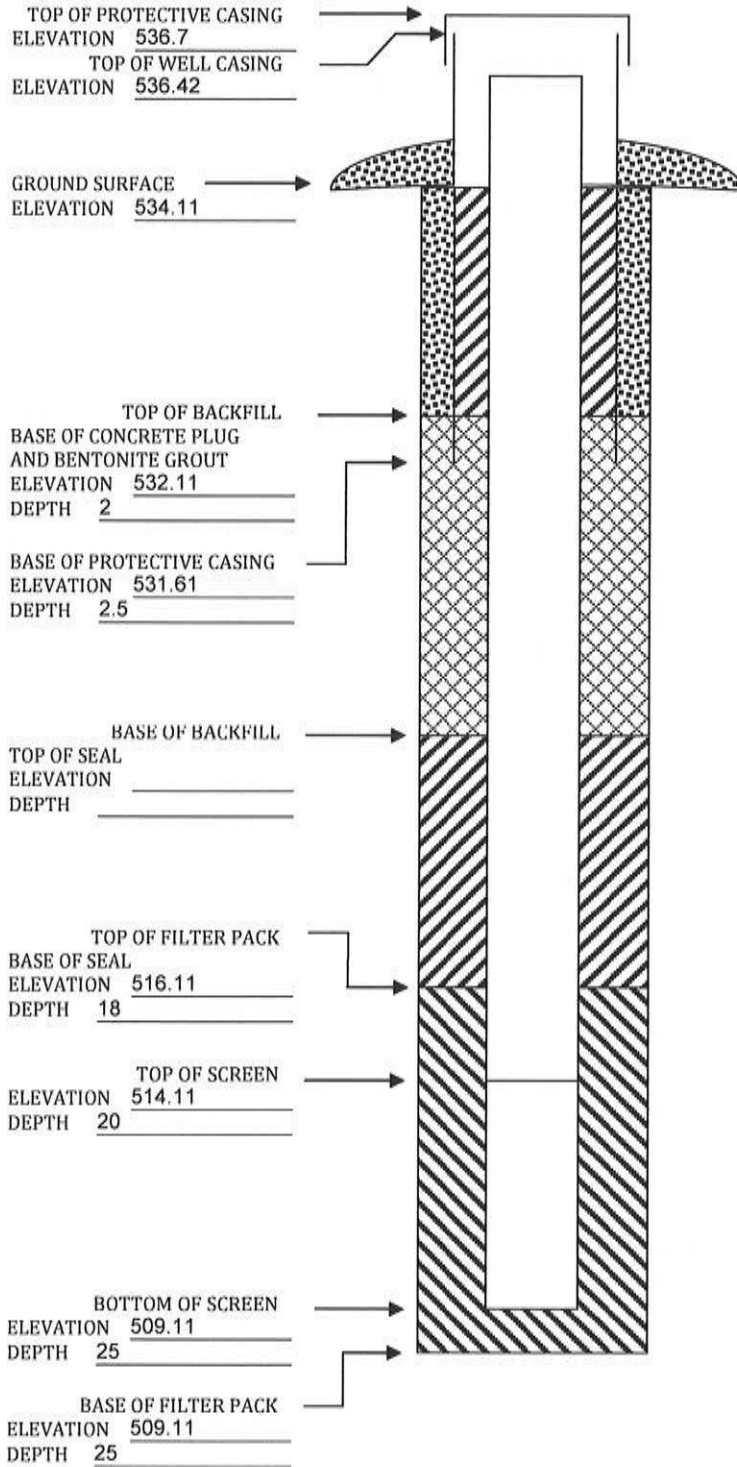
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-310

Dates Started: 3/1/16 Date Completed: 3/1/16

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): Specify corner of site: <u>Sullivan Slough RD West ROW</u>	Name & Address of Construction Company: <u>Direct Push Analytical Corp</u>
Distance & direction along boundary: <u>65' S from RR Tracks</u>	<u>4N969 Old LaFox Road, Unit E</u>
Distance & direction from boundary to wall: <u>21' W</u>	<u>St. Charles, IL 60175</u>
Elevations (± 0.01 ft MSL):	Name of Driller: <u>Kevin Collins</u>
Ground Surface: <u>532.23</u>	Drilling Method: <u>Direct Push/4.25" HSA</u>
Top of protective casing: <u>532.23</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>531.99</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Macro Core</u>
Benchmark description: _____	Depth of Boring: <u>24 ft bgs</u>

C. MONITORING WELL INSTALLATION	
Casing material: _____ <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: _____ <u>14</u>	Volume: <u>2.7 cubic ft.</u>
Outside casing diameter: _____ <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: _____ <u>2"</u>	Material: _____
Casing joint type: _____ <u>threaded</u>	Placement method: _____
Casing/screen joint type: _____ <u>threaded</u>	Volume: _____
Screen material: <u>PVC with slip cap and 4 stainless screws</u>	Surface seal design: _____
Screen opening size: _____ <u>0.010"</u>	Material of protective casing: <u>Steel 4 inch</u>
Screen length: _____ <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: _____ <u>19 ft bgs</u>	Protective cap: _____
Filter Pack: _____	Material: <u>Steel, not vented, flush-mount</u>
Material: _____ <u>NSF R.W Sidley Inc.</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: _____ <u>10/20</u>	Well Cap: _____
Volume: _____ <u>1 cubic ft.</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Black Hills Bentonite 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)	
Water level: <u>6.58</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 112.5 gallons pumped.</u>	
Average depth of frostline: <u>3.5</u>	

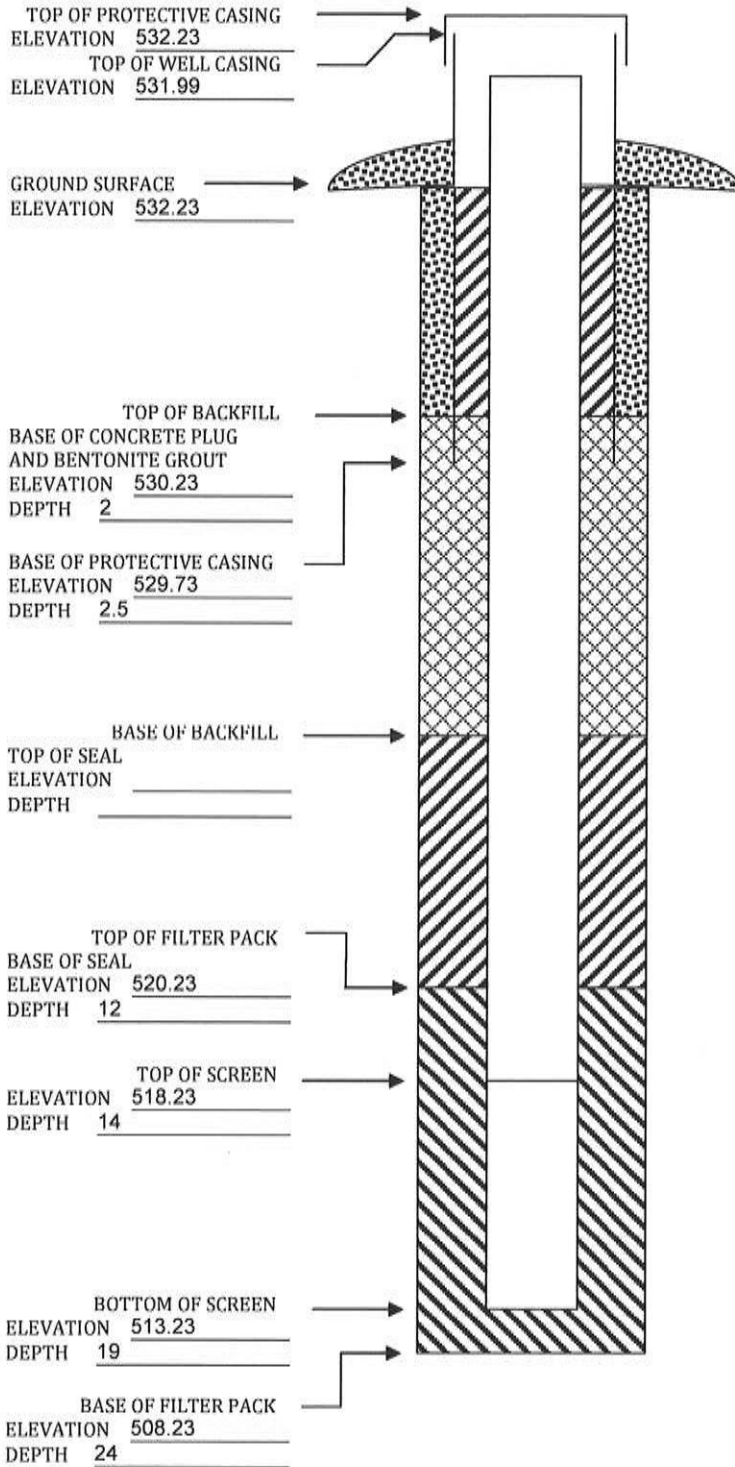
Attachments: Driller's log, Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. _____
Well or Piezometer No. MW-310A Dates Started 6/25/2020 Date Completed 6/26/2020

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site Sullivan SloughRd WestROW Distance and direction along boundary 75' S from RR Tracks
Distance and direction from boundary to surface monitoring well 21' W
Elevation (+0.01 ft. MSL) _____
Ground Surface 532.91' Top of protective casing 532.91'
Top of well casing 532.53' Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Roberts Environmental Drilling
Address 1107 S Mulberry St City, State, Zip Code Millstadt, IL 62260
Name of driller Jeff Crank
Drilling method Hollow Stem Auger Drilling fluid Water Bore Hole diameter 4.25"
Soil sampling method Split spoon Depth of boring 50'

C. MONITORING WELL INSTALLATION

Casing material <u>Sch. 40 PVC</u>	Placement method <u>Pumped</u>
Length of casing <u>49.4'</u>	Volume <u>8, 50lbs bags (~130 gallons of grout)</u>
Outside casing diameter <u>2.4"</u>	Backfill (if different from seal): _____
Inside casing diameter <u>2"</u>	Material <u>3/8" Bentonite chips</u>
Casing joint type <u>Threaded</u>	Placement method <u>Poured</u>
Casing/screen joint type <u>Threaded</u>	Volume <u>23, 50lbs bags</u>
Screen material <u>Sch. 40 PVC</u>	Surface seal design: <u>Flush mount</u>
Screen opening size <u>0.01</u>	Material of protective casing: <u>steel</u>
Screen length <u>5'</u>	Material of grout between protective casing and well casing: <u>Bentonite chips</u>
Depth of Well <u>49'</u>	Protective cap: _____
Filter Pack: _____	Material <u>Steel</u>
Material <u>Sand (FilterSil)</u>	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Locking?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Grain Size <u>18-23</u>	Well cap: <u>Lockable expanding well plug</u>
Volume <u>3, 50lbs bags</u>	Material <u>Plastic</u>
Seal (minimum 3 ft. length above filter pack): _____	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Material <u>Bentonite grout</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 foot below top of inner well casing)

Water level 8.77' Stabilization time >48 hrs
Well development method Surged with bailer and pumped
Average depth of frost line 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature *Jeff Crank* Certification # 8515 Date 9-16-20

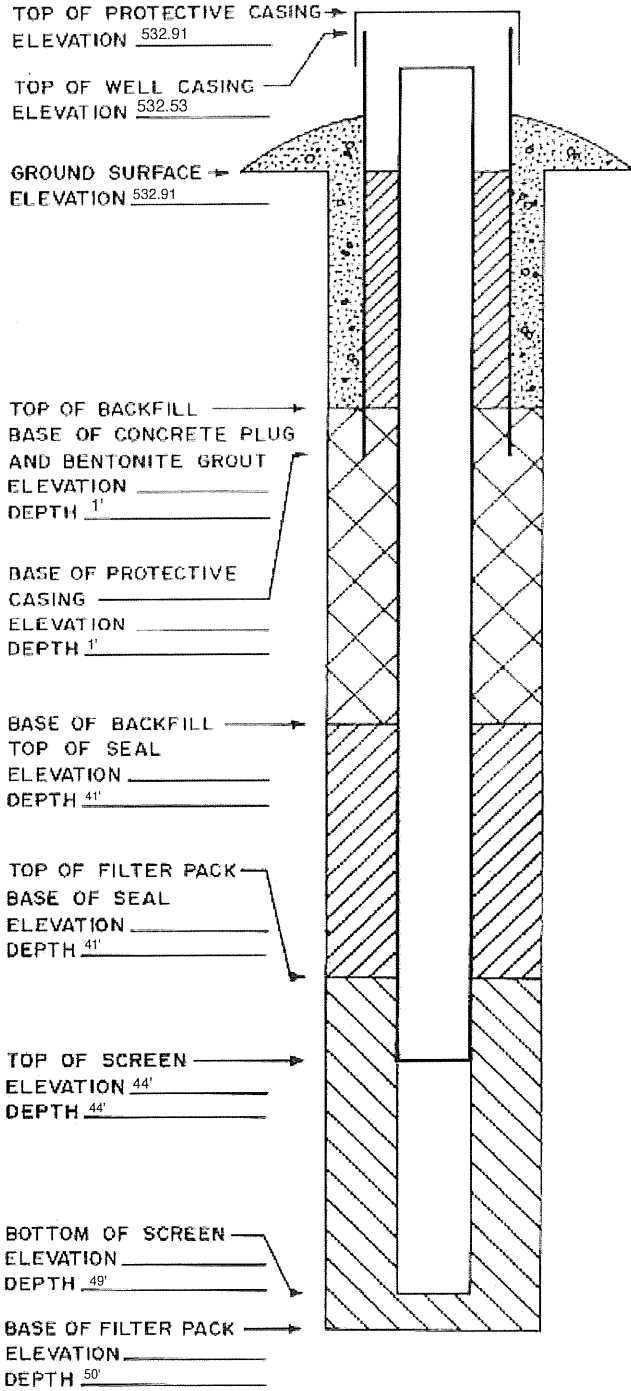
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

ELEVATIONS: ± 0.01 FT. MSL
 DEPTHS: ± 0.1 FT. FROM
 GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
 (SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-311

Dates Started: 3/1/16 Date Completed: 3/1/16

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (\pm 0.5 ft): _____	Name & Address of Construction Company: _____
Specify corner of site: <u>Sullivan Slough RD West ROW</u>	<u>Direct Push Analytical Corp</u>
Distance & direction along boundary: <u>207' S from RR Tracks</u>	<u>4N969 Old LaFox Road, Unit E</u>
Distance & direction from boundary to wall: <u>18' W</u>	<u>St. Charles, IL 60175</u>
Elevations (\pm 0.01 ft MSL): _____	Name of Driller: <u>Kevin Collins</u>
Ground Surface: <u>532.69</u>	Drilling Method: <u>Direct Push/4.25" HSA</u>
Top of protective casing: <u>532.69</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>532.32</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Macro Core</u>
Benchmark description: _____	Depth of Boring: <u>32 ft bgs</u>

C. MONITORING WELL INSTALLATION	
Casing material: _____ <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: _____ <u>18</u>	Volume: <u>3.7 cubic ft.</u>
Outside casing diameter: _____ <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: _____ <u>2"</u>	Material: _____
Casing joint type: _____ <u>threaded</u>	Placement method: _____
Casing/screen joint type: _____ <u>threaded</u>	Volume: _____
Screen material: <u>PVC with slip cap and 4 stainless screws</u>	Surface seal design: _____
Screen opening size: _____ <u>0.010"</u>	Material of protective casing: <u>Steel 4 inch</u>
Screen length: _____ <u>5</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: _____ <u>23</u>	Protective cap: _____
Filter Pack: _____	Material: <u>steel, not vented, flush-mount</u>
Material: _____ <u>NSF R.W Sidley Inc.</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: _____ <u>10/20</u>	Well Cap: _____
Volume: _____ <u>1 cubic ft.</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Black Hills Bentonite 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (\pm 0.01 ft below top of inner well casing)	
Water level: <u>8.34 ft</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 99 gallons pumped.</u>	
Average depth of frostline: <u>3.5'</u>	

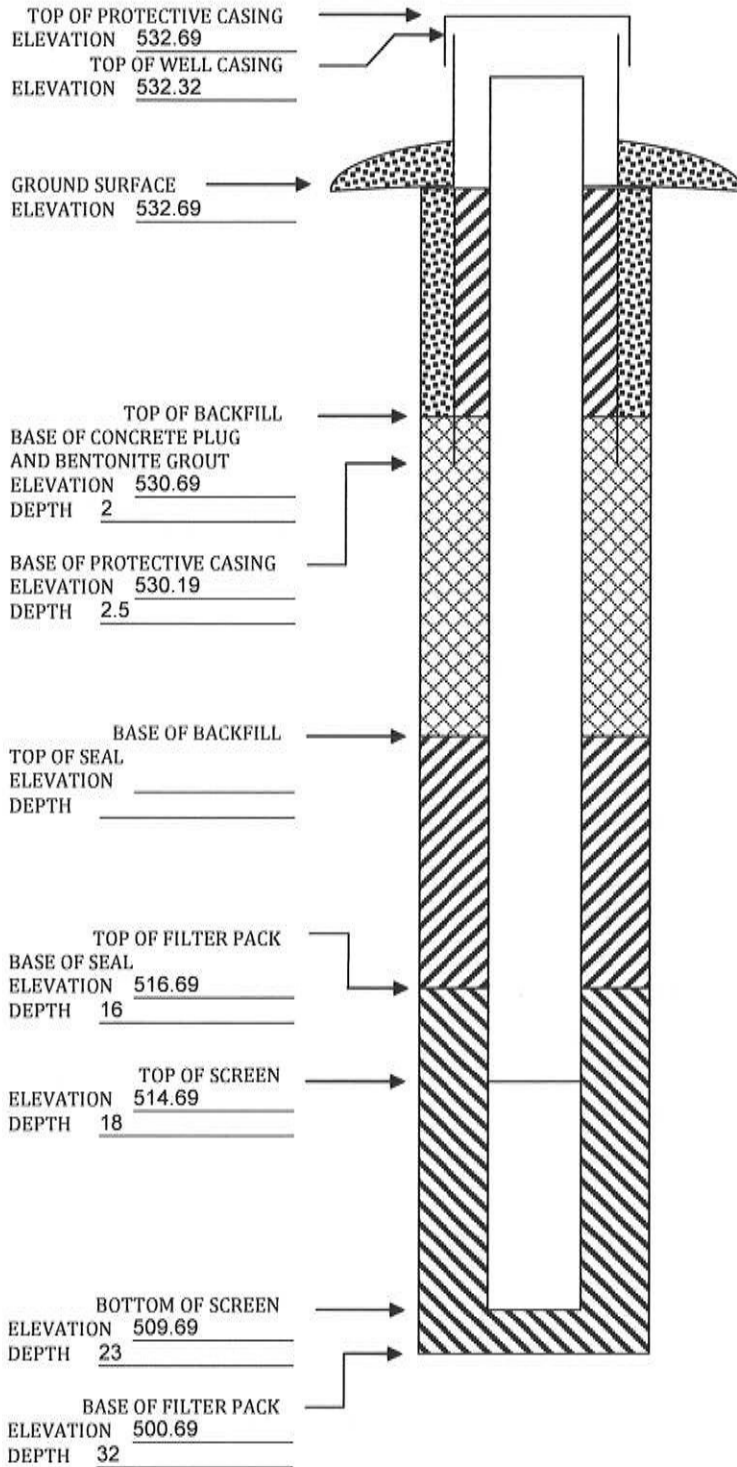
Attachments: Driller's log, Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name IPL Burlington Generating Station Permit No. _____
Well or Piezometer No. MW312 Dates Started 5/20/2019 Date Completed 5/21/2019

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site SE Distance and direction along boundary 1,400 N
Distance and direction from boundary to surface monitoring well 200 W
Elevation (+0.01 ft. MSL) _____
Ground Surface 533.80 Top of protective casing 536.83
Top of well casing 536.43 Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Roberts Environmental Drilling, Inc.
Address 1107 S Mullberry St. City, State, Zip Code Millstadt, IL 62260
Name of driller Jeff Crank
Drilling method 4.25" HSA Drilling fluid _____ Bore Hole diameter 8.5"
Soil sampling method split spoon Depth of boring 26'

C. MONITORING WELL INSTALLATION

Casing material <u>PVC</u>	Placement method <u>gravity</u>
Length of casing <u>27.65</u>	Volume <u>5 cu. ft.</u>
Outside casing diameter <u>2.4"</u>	Backfill (if different from seal): _____
Inside casing diameter <u>2.0"</u>	Material _____
Casing joint type <u>threaded</u>	Placement method _____
Casing/screen joint type <u>threaded</u>	Volume _____
Screen material <u>PVC</u>	Surface seal design: <u>Concrete</u>
Screen opening size <u>0.01"</u>	Material of protective casing: <u>Steel</u>
	Material of grout between protective casing and well casing: <u>Bentonite</u>
Screen length <u>5'</u>	Protective cap: _____
Depth of Well <u>25'</u>	Material <u>Steel</u>
Filter Pack: _____	Vented?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Locking?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Material <u>filter sand</u>	Well cap: <u>Low-flow purge cap</u>
Grain Size <u>#5</u>	Material <u>Plastic</u>
Volume <u>3 cu. ft.</u>	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Seal (minimum 3 ft. length above filter pack): _____	
Material <u>Bentonite chips</u>	

D. GROUNDWATER MEASUREMENT (+0.01 foot below top of inner well casing)

Water level 4.85 Stabilization time < 1 hr
Well development method Surged and pumped to remove turbidity
Average depth of frost line 4 ft

DRILLER'S CERTIFICATION

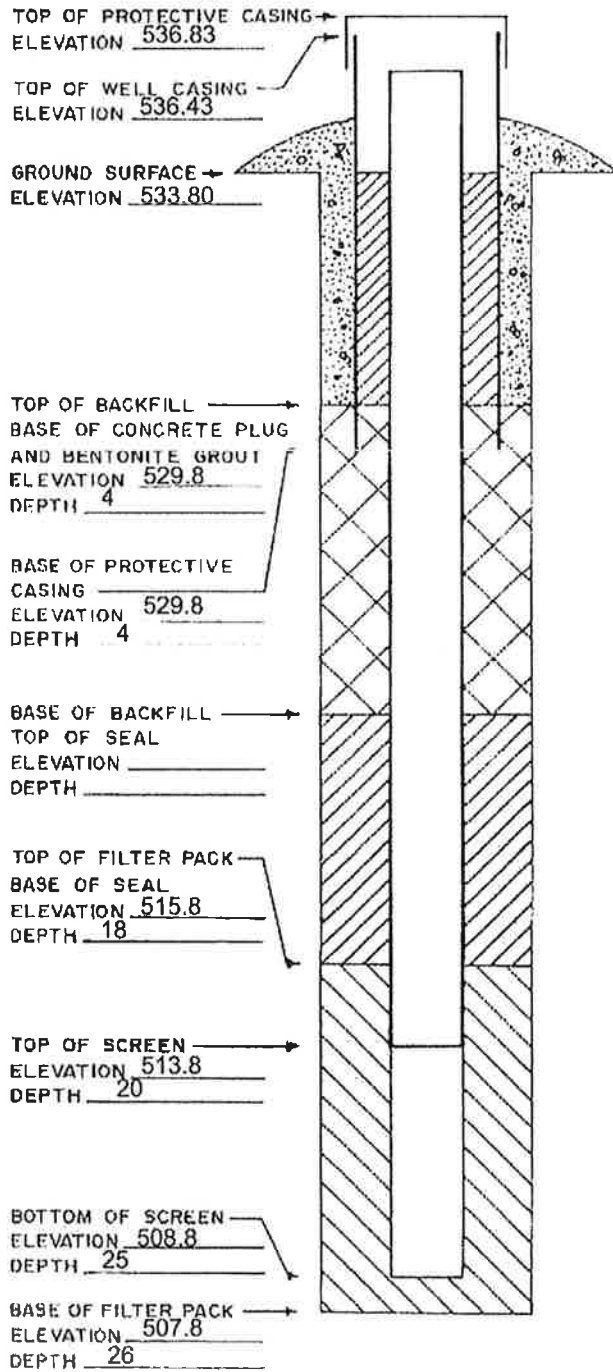
I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature *Jeff Crank* Certification # 8515 Date 8/8/2019

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 inch x 11 inch map showing locations of all monitoring wells and piezometers.
Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov
09/2017 cmc DNR Form 542-1277

ELEVATIONS: ± 0.01 FT. MSL
 DEPTHS: ± 0.1 FT. FROM
 GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
 (SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name IPL Burlington Generating Station Permit No. _____
Well or Piezometer No. MW313 Dates Started 5/21/2019 Date Completed 5/22/2019

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site SE Distance and direction along boundary 890 N
Distance and direction from boundary to surface monitoring well 130 E
Elevation (+0.01 ft. MSL) _____
Ground Surface 533.97 Top of protective casing 536.18
Top of well casing 535.82 Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Roberts Environmental Drilling, Inc.
Address 1107 S Mullberry St. City, State, Zip Code Millstadt, IL 62260
Name of driller Jeff Crank
Drilling method 4.25" HSA Drilling fluid water Bore Hole diameter 8.5"
Soil sampling method split spoon Depth of boring 32'

C. MONITORING WELL INSTALLATION

Casing material <u>PVC</u>	Placement method <u>gravity</u>
Length of casing <u>32.99'</u>	Volume <u>7 cu. ft.</u>
Outside casing diameter <u>2.4"</u>	Backfill (if different from seal): _____
Inside casing diameter <u>2.0"</u>	Material _____
Casing joint type <u>threaded</u>	Placement method _____
Casing/screen joint type <u>threaded</u>	Volume _____
Screen material <u>PVC</u>	Surface seal design: <u>Concrete</u>
Screen opening size <u>0.01"</u>	Material of protective casing: <u>Steel</u>
	Material of grout between protective casing and well casing: <u>Bentonite</u>
Screen length <u>5'</u>	Protective cap: _____
Depth of Well <u>31'</u>	Material <u>steel</u>
Filter Pack:	Vented?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Locking?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Material <u>filter sand</u>	Well cap: <u>Low-flow purge cap</u>
Grain Size <u>#5</u>	Material <u>Plastic</u>
Volume <u>3 cu. ft.</u>	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Seal (minimum 3 ft. length above filter pack): _____	
Material <u>Bentonite chips</u>	

D. GROUNDWATER MEASUREMENT (+0.01 foot below top of inner well casing)

Water level 4.25 Stabilization time < 1 hr
Well development method Surged and pumped to remove turbidity
Average depth of frost line 4 ft

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature *Jeff Crank* Certification # 8515 Date 8/8/2019

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

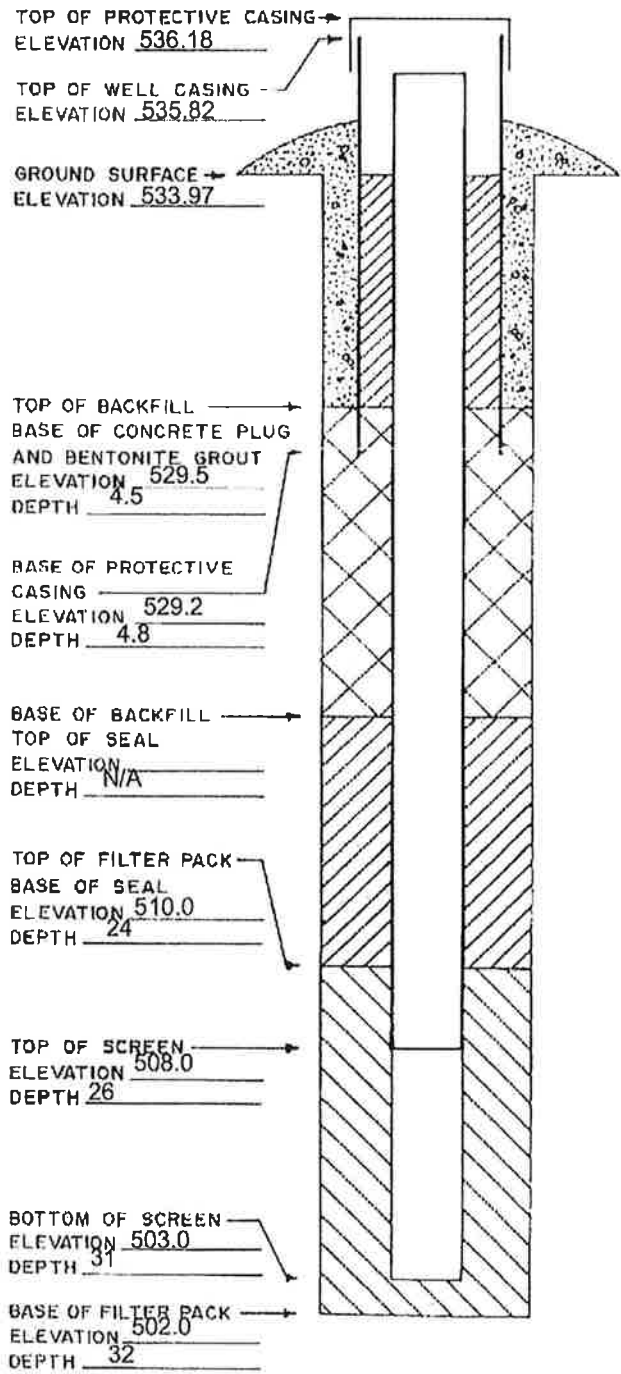
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

09/2017 cmc

DNR Form 542-1277

ELEVATIONS: ± 0.01 FT. MSL
 DEPTHS: ± 0.1 FT. FROM
 GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
 (SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. _____
Well or Piezometer No. MW-313A Dates Started 6/23/2020 Date Completed 6/30/2020

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site SE Distance and direction along boundary 890 N
Distance and direction from boundary to surface monitoring well 130 E
Elevation (+0.01 ft. MSL) _____
Ground Surface 529.35' Top of protective casing 532.03'
Top of well casing 531.63' Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Roberts Environmental Drilling
Address 1107 S Mulberry St City, State, Zip Code Millstadt, IL 62260
Name of driller Jeff Crank
Drilling method Hollow Stem Auger Drilling fluid Water Bore Hole diameter 4.25"
Soil sampling method Split spoon Depth of boring 62'

C. MONITORING WELL INSTALLATION

Casing material <u>Sch. 40 PVC</u>	Placement method <u>Pumped</u>
Length of casing <u>63.38'</u>	Volume <u>9, 50lbs bags (~150 gallons of grout)</u>
Outside casing diameter <u>2.4"</u>	Backfill (if different from seal): _____
Inside casing diameter <u>2"</u>	Material <u>3/8" Bentonite chips</u>
Casing joint type <u>Threaded</u>	Placement method <u>Poured</u>
Casing/screen joint type <u>Threaded</u>	Volume <u>3, 50lbs bags</u>
Screen material <u>Sch. 40 PVC</u>	Surface seal design: <u>Concrete</u>
Screen opening size <u>0.01</u>	Material of protective casing: <u>steel</u>
Screen length <u>5'</u>	Material of grout between protective casing and well casing: <u>Bentonite chips</u>
Depth of Well <u>61'</u>	Protective cap: _____
Filter Pack: _____	Material <u>Steel</u>
Material <u>Sand (FilterSil)</u>	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Locking?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Grain Size <u>18-23</u>	Well cap: <u>Lockable expanding well plug</u>
Volume <u>2, 50lbs bags</u>	Material <u>Plastic</u>
Seal (minimum 3 ft. length above filter pack): _____	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Material <u>Bentonite grout</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 foot below top of inner well casing)

Water level 14.41' Stabilization time < 5 min
Well development method Surged with bailer and pumped
Average depth of frost line 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature *Jeff Crank* Certification # 8515 Date 9-16-20

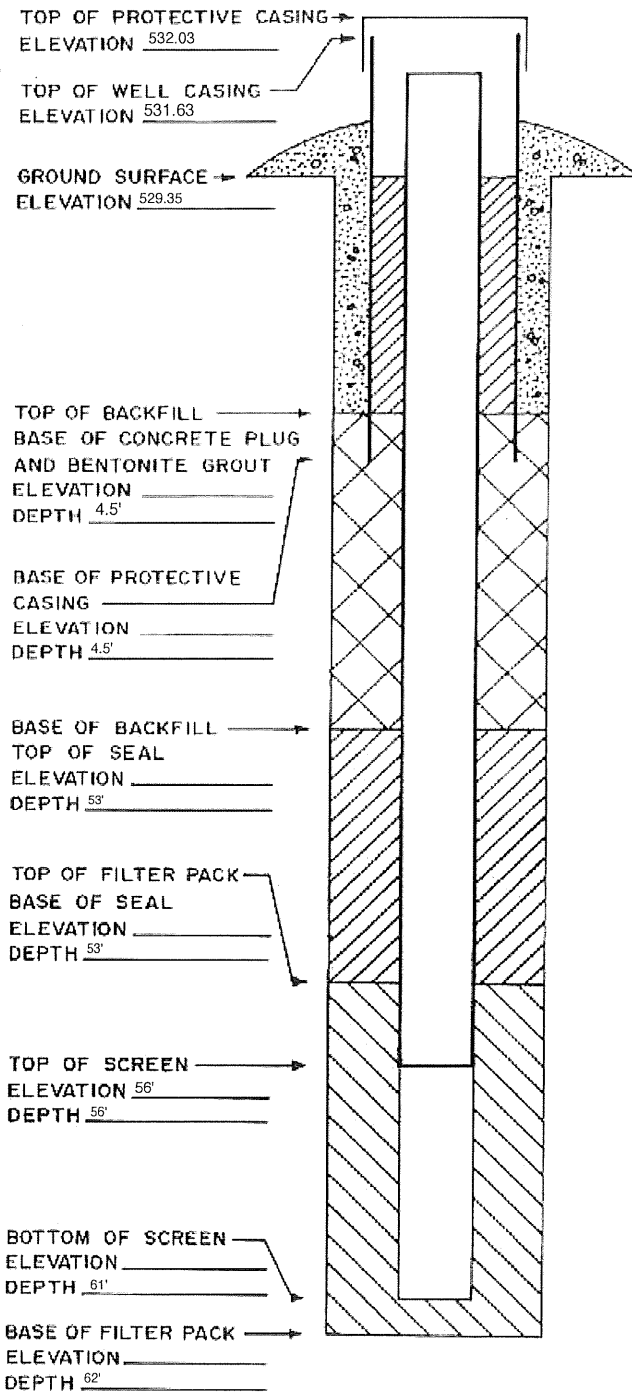
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

ELEVATIONS: ± 0.01 FT. MSL
DEPTHS: ± 0.1 FT. FROM
GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. _____
 Well or Piezometer No. ML-307AAB Dates Started 5/10/2021 Date Completed 5/13/2021

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site _____ Distance and direction along boundary _____
 Distance and direction from boundary to surface monitoring well _____
 Elevation (+0.01 ft. MSL) _____
 Ground Surface _____ Top of protective casing _____
 Top of well casing _____ Benchmark elevation _____
 Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name _____
 Address _____ City, State, Zip Code _____
 Name of driller _____
 Drilling method Roto-Sonic Drilling fluid water Bore Hole diameter 6"
 Soil sampling method Bagged Depth of boring 85'

C. MONITORING WELL INSTALLATION

Casing material <u>Sch. 40 PVC</u> Length of casing _____ Outside casing diameter <u>2.4"</u> Inside casing diameter <u>2.05"</u> Casing joint type <u>Sch. 40 PVC Threaded</u> Casing/screen joint type <u>Threaded</u> Screen material <u>Sch. 40 PVC</u> Screen opening size <u>0.01"</u> Screen length <u>5'</u> Depth of Well <u>80'</u> Filter Pack: Material <u>Red Flint filter sand</u> Grain Size <u>#40</u> Volume <u>3.5 bags, 1.75 ft³</u> Seal (minimum 3 ft. length above filter pack): Material <u>Bentonite chips (50lbs. bag)</u>	Placement method <u>pour</u> Volume <u>1 bag</u> Backfill (if different from seal): Material <u>Bentonite grout</u> Placement method <u>pumped</u> Volume <u>~55 gallons</u> Surface seal design: Material of protective casing: <u>Steel</u> Material of grout between protective casing and well casing: <u>Bentonite chips and sand</u> Protective cap: <u>Aluminum</u> Material _____ Vented?: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N Locking?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Well cap: Material <u>Plastic</u> Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
---	---

D. GROUNDWATER MEASUREMENT (+0.01 foot below top of inner well casing)

Water level _____ Stabilization time _____
 Well development method _____
 Average depth of frost line _____

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature _____ Certification # _____ Date _____

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

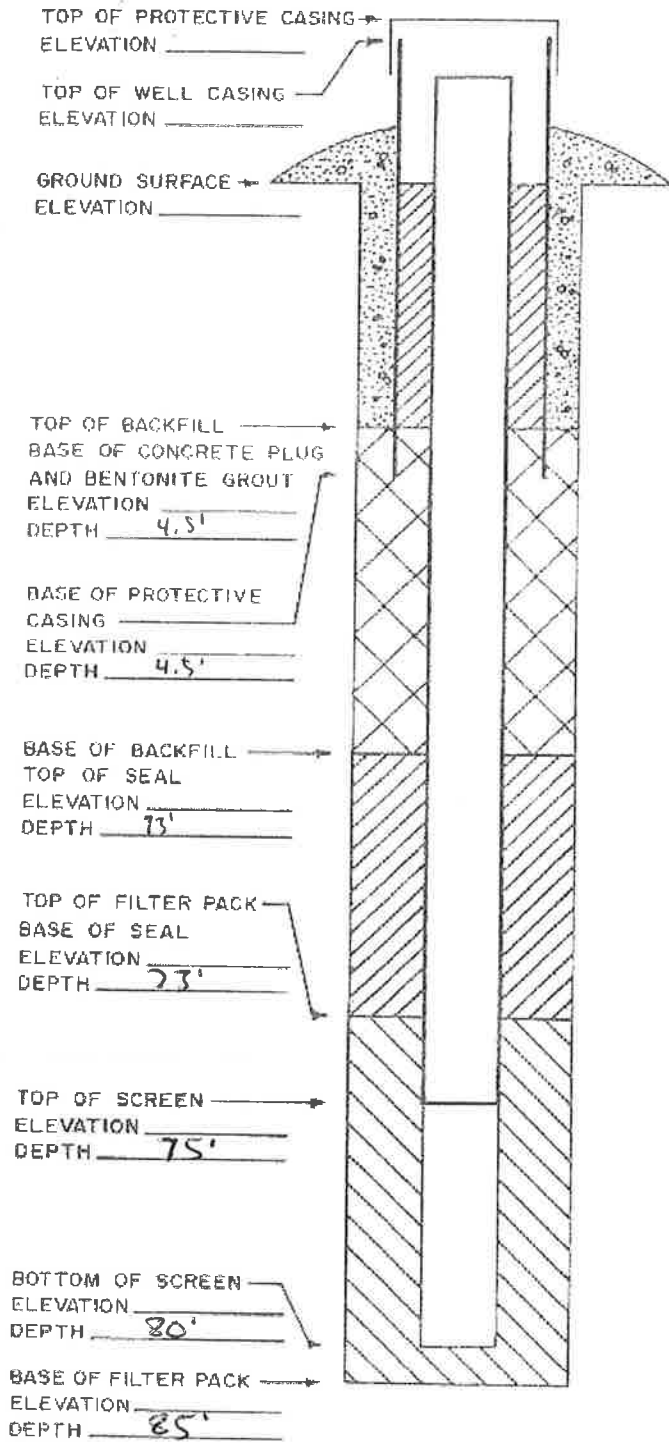
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

09/2017 cmc

DNR Form 542-1277

ELEVATIONS: ± 0.01 FT. MSL
DEPTHS: ± 0.1 FT. FROM
GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. _____
 Well or Piezometer No. MU-313B Dates Started 5/11/2021 Date Completed 5/12/2021

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site _____ Distance and direction along boundary _____
 Distance and direction from boundary to surface monitoring well _____
 Elevation (+0.01 ft. MSL) _____
 Ground Surface _____ Top of protective casing _____
 Top of well casing _____ Benchmark elevation _____
 Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Cascade Drilling
 Address _____ City, State, Zip Code _____
 Name of driller Mike Mueller
 Drilling method Roto-Sonic Drilling fluid Water Bore Hole diameter 6"
 Soil sampling method Bagged Depth of boring 75"

C. MONITORING WELL INSTALLATION

Casing material <u>Sch. 40 PVC</u> Length of casing <u>69.5'</u> Outside casing diameter <u>2.4"</u> Inside casing diameter <u>2.05"</u> Casing joint type <u>Threaded</u> Casing/screen joint type <u>Threaded</u> Screen material <u>Sch. 40 PVC</u> Screen opening size <u>0.01"</u> Screen length <u>5'</u> Depth of Well <u>72'</u> Filter Pack: Material <u>Red Flint filter sand</u> Grain Size <u>#40</u> Volume <u>1ft³ (2 bags @ 1/2 ft³ each)</u> Seal (minimum 3 ft. length above filter pack): Material <u>3/8" Bentonite chips</u>	Placement method <u>Poured</u> Volume <u>1 bag (50 # bag)</u> Backfill (if different from seal): Material <u>Bentonite Grout</u> Placement method <u>Pumped</u> Volume <u>55 gallons</u> Surface seal design: Material of protective casing: <u>Steel</u> Material of grout between protective casing and well casing: <u>Bentonite chips and sand</u> Protective cap: Material <u>Aluminum</u> Vented?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Locking?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Well cap: Material <u>plastic</u> Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
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D. GROUNDWATER MEASUREMENT (+0.01 foot below top of inner well casing)

Water level _____ Stabilization time _____
 Well development method _____
 Average depth of frost line _____

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature _____ Certification # _____ Date _____

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

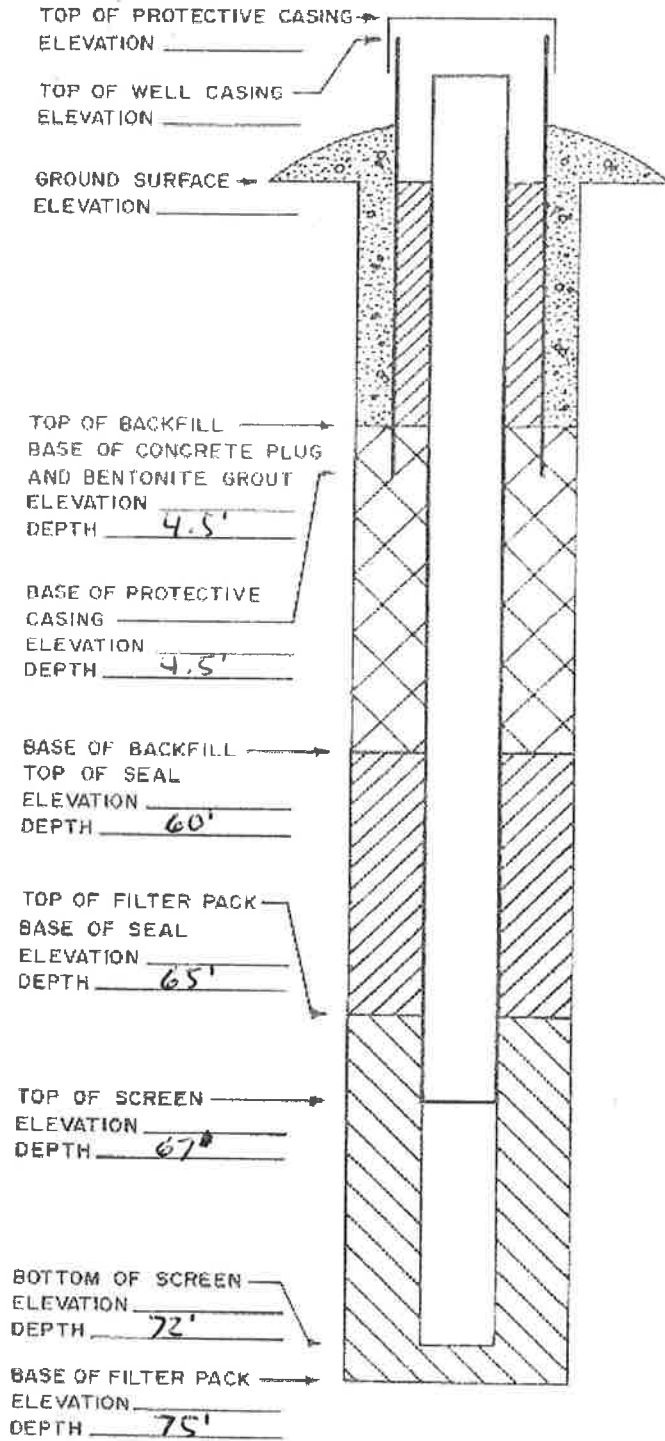
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

09/2017 cmc

DNR Form 542-1277

ELEVATIONS: \pm 0.01 FT. MSL
DEPTHS: \pm 0.1 FT. FROM
GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. 58619
Well or Piezometer No. MW-314 Dates Started 2/25/2022 Date Completed 2/25/2022

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site SE of parcel 16-32-300-005 Distance and direction along boundary 400' W
Distance and direction from boundary to surface monitoring well 750' N
Elevation (+0.01 ft. MSL) _____
Ground Surface 524.09 Top of protective casing 526.72
Top of well casing 526.58 Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Terracon Consultants Inc.
Address 870 40th Ave. City, State, Zip Code Bettendorf, IA 52722
Name of driller Ryan Peterson
Drilling method Hollow-stem-auger Drilling fluid None Bore Hole diameter 8.25"
Soil sampling method Split spoon Depth of boring 24'

C. MONITORING WELL INSTALLATION

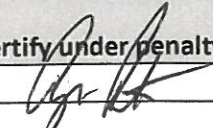
Casing material <u>PVC</u>	Placement method <u>Gravity-poured</u>
Length of casing <u>20.47'</u>	Volume <u>2 cu. ft.</u>
Outside casing diameter <u>2.38"</u>	Backfill (if different from seal): <u>Same as Seal</u>
Inside casing diameter <u>2.01"</u>	Material <u>3/8" Bentonite chips - holeplug</u>
Casing joint type <u>Threaded</u>	Placement method <u>Manually</u>
Casing/screen joint type <u>Threaded</u>	Volume <u>3.35 cu. ft.</u>
Screen material <u>PVC-factory slotted</u>	Surface seal design: _____
Screen opening size <u>0.010"</u>	Material of protective casing: <u>Steel</u>
Screen length <u>5'</u>	Material of grout between protective casing and well casing: <u>Bentonite chips</u>
Depth of Well <u>23'</u>	Protective cap: _____
Filter Pack: _____	Material <u>Steel</u>
Material <u>Sand - Gillibrand Industrial</u>	Vented?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Grain Size _____	Locking?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Volume <u>2 cu. ft.</u>	Well cap: _____
Seal (minimum 3 ft. length above filter pack): _____	Material <u>Rubber</u>
Material <u>3/8" Bentonite chips - holeplug</u>	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N

D. GROUNDWATER MEASUREMENT (± 0.01 foot below top of inner well casing)

Water level 7.2" Stabilization time 20 min
Well development method Surged and pumped to remove turbidity
Average depth of frost line 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature  Certification # 10115 Date 6-7-22

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

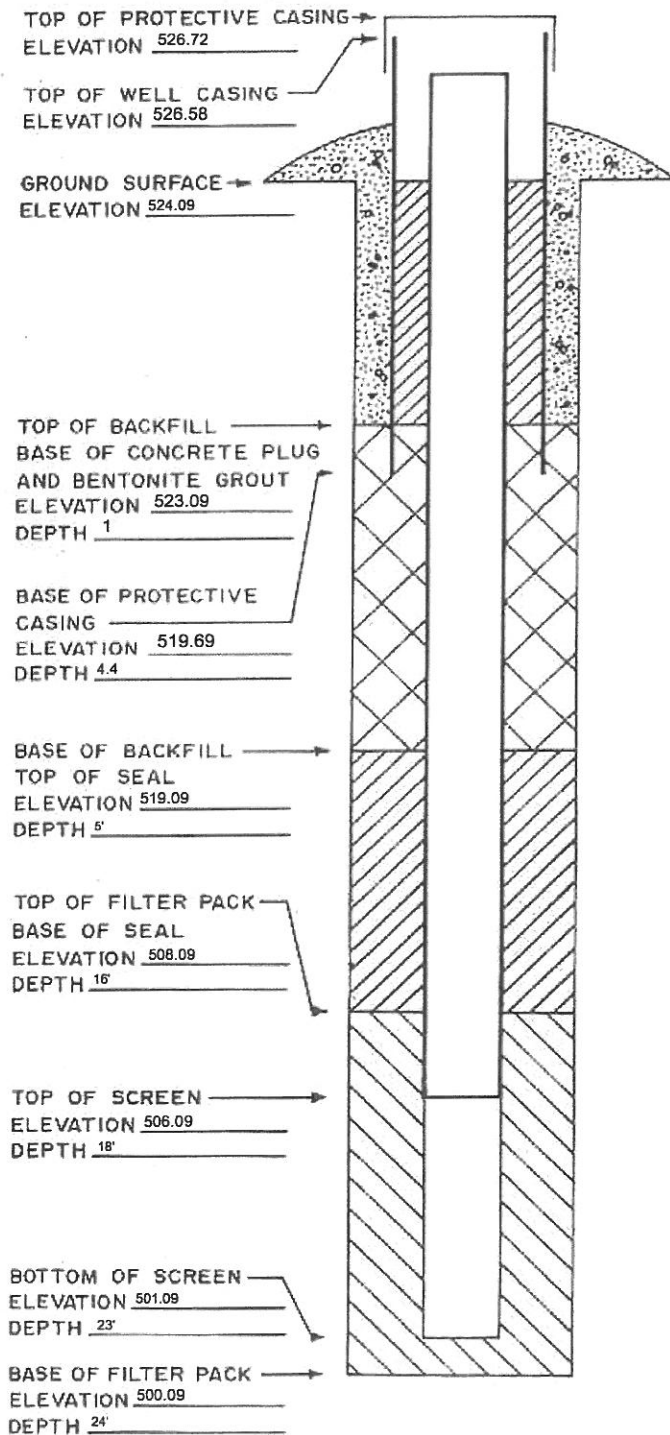
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov


09/2017 cmc

DNR Form 542-1277

ELEVATIONS: ± 0.01 FT. MSL
DEPTHS: ± 0.1 FT. FROM
GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).





Appendix C
Analytical Laboratory Reports

C1 October 2023 Assessment Monitoring

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ANALYTICAL REPORT

PREPARED FOR

Attn: Meghan Blodgett
SCS Engineers
2830 Dairy Drive
Madison, Wisconsin 53718

Generated 11/29/2023 2:52:09 PM Revision 1

JOB DESCRIPTION

Burlington Generating Station 25223066

JOB NUMBER

310-266692-1

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



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Revision 1

Authorized for release by
Sandie Fredrick, Project Manager II
Sandra.Fredrick@et.eurofinsus.com
(920)261-1660



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Case Narrative

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Job ID: 310-266692-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative 310-266692-1

Revision

The report being provided is a revision of the original report sent on 11/7/2023. The report (revision 1) is being revised due to: Secondary run reported for Thallium on MW-303 due to carryover.

Receipt

The samples were received on 10/6/2023 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.2° C, 1.8° C and 2.0° C.

HPLC/IC

Method 9056A: The following samples were diluted due to the nature of the sample matrix: MW-301 (310-266692-1), MW-302 (310-266692-2), MW-303 (310-266692-4), MW-304 (310-266692-5), MW-305 (310-266692-6), MW-306 (310-266692-7), MW-307 (310-266692-8), MW-308 (310-266692-11), MW-309 (310-266692-12) and MW-310 (310-266692-13). Elevated reporting limits (RLs) are provided.

Method 9056A: The following samples were diluted due to the nature of the sample matrix: MW-311 (310-266692-15) and MW-314 (310-266692-20). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

RAD

Method 904.0: Radium 228 batch 631580 The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: MW-309 (310-266692-12). Analytical results are reported with the detection limit achieved.

Method 904.0: Radium 228 batch 631580 Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-301 (310-266692-1), MW-302 (310-266692-2), MW-303 (310-266692-4), MW-304 (310-266692-5), MW-305 (310-266692-6), MW-306 (310-266692-7), MW-307 (310-266692-8), MW-308 (310-266692-11), MW-309 (310-266692-12), MW-310 (310-266692-13), MW-310A (310-266692-14), MW-311 (310-266692-15), MW-314 (310-266692-20), Field Blank (310-266692-21), (LCS 160-631580/2-A), (MB 160-631580/1-A) and (310-266692-D-21-B DU)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-266692-1	MW-301	Water	10/03/23 15:25	10/06/23 16:15
310-266692-2	MW-302	Water	10/03/23 14:25	10/06/23 16:15
310-266692-3	MW-302A	Water	10/03/23 13:40	10/06/23 16:15
310-266692-4	MW-303	Water	10/03/23 12:45	10/06/23 16:15
310-266692-5	MW-304	Water	10/03/23 11:40	10/06/23 16:15
310-266692-6	MW-305	Water	10/03/23 10:05	10/06/23 16:15
310-266692-7	MW-306	Water	10/04/23 15:30	10/06/23 16:15
310-266692-8	MW-307	Water	10/04/23 10:35	10/06/23 16:15
310-266692-9	MW-307A	Water	10/04/23 09:50	10/06/23 16:15
310-266692-10	MW-307B	Water	10/04/23 11:30	10/06/23 16:15
310-266692-11	MW-308	Water	10/03/23 11:00	10/06/23 16:15
310-266692-12	MW-309	Water	10/04/23 16:30	10/06/23 16:15
310-266692-13	MW-310	Water	10/05/23 11:45	10/06/23 16:15
310-266692-14	MW-310A	Water	10/05/23 12:15	10/06/23 16:15
310-266692-15	MW-311	Water	10/05/23 10:45	10/06/23 16:15
310-266692-16	MW-312	Water	10/03/23 09:50	10/06/23 16:15
310-266692-17	MW-313	Water	10/04/23 14:15	10/06/23 16:15
310-266692-18	MW-313A	Water	10/04/23 13:35	10/06/23 16:15
310-266692-19	MW-313B	Water	10/04/23 12:50	10/06/23 16:15
310-266692-20	MW-314	Water	10/05/23 09:45	10/06/23 16:15
310-266692-21	Field Blank	Water	10/05/23 10:30	10/06/23 16:15



Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-301

Lab Sample ID: 310-266692-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.38	J	1.0	0.38	mg/L	5		9056A	Total/NA
Sulfate	770		100	42	mg/L	100		9056A	Total/NA
Arsenic	3.8		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	33		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	5200		400	300	ug/L	4		6020B	Total/NA
Calcium	150		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	12		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	8200		100	36	ug/L	1		6020B	Total/NA
Lithium	13		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	65		8.0	3.6	ug/L	4		6020B	Total/NA
Total Dissolved Solids	1600		250	170	mg/L	1		SM 2540C	Total/NA
pH	7.8	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.33				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-90.4				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.35				mg/L	1		Field Sampling	Total/NA
Field pH	6.76				SU	1		Field Sampling	Total/NA
Field Conductivity	2278				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.9				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	5.90				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-302

Lab Sample ID: 310-266692-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.8	J	5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	220		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	3.8		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	74		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	1600		100	76	ug/L	1		6020B	Total/NA
Cadmium	0.19	J	0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	120		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	7.6		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	3400		100	36	ug/L	1		6020B	Total/NA
Lithium	40		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	180		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	530		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.19				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-53.4				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.10				mg/L	1		Field Sampling	Total/NA
Field pH	6.65				SU	1		Field Sampling	Total/NA
Field Conductivity	797				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.6				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	6.25				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-302A

Lab Sample ID: 310-266692-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	3900		100	36	ug/L	1		6020B	Total/NA
Lithium	4.6	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	8.5		2.0	0.91	ug/L	1		6020B	Total/NA
Groundwater Elevation	518.12				ft	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-302A (Continued)

Lab Sample ID: 310-266692-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Oxidation Reduction Potential	-46.7				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.46				mg/L	1		Field Sampling	Total/NA
Field pH	7.11				SU	1		Field Sampling	Total/NA
Field Conductivity	467.3				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	13.9				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	8.28				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-303

Lab Sample ID: 310-266692-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	190		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	14		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	120		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	3700		100	76	ug/L	1		6020B	Total/NA
Cadmium	0.18	J	0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	120		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	1.7		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	11000		100	36	ug/L	1		6020B	Total/NA
Lithium	31		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	150		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	590		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.06				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	140.2				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.10				mg/L	1		Field Sampling	Total/NA
Field pH	6.87				SU	1		Field Sampling	Total/NA
Field Conductivity	954				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.2				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	4.90				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-304

Lab Sample ID: 310-266692-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	14		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	280		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	32		8.0	2.1	ug/L	4		6020B	Total/NA
Barium	160		8.0	2.6	ug/L	4		6020B	Total/NA
Boron	5800		1000	760	ug/L	10		6020B	Total/NA
Calcium	430		2.0	0.76	mg/L	4		6020B	Total/NA
Cobalt	44		2.0	0.68	ug/L	4		6020B	Total/NA
Iron	130000		400	140	ug/L	4		6020B	Total/NA
Lead	0.97	J	2.0	0.96	ug/L	4		6020B	Total/NA
Lithium	500		40	10	ug/L	4		6020B	Total/NA
Molybdenum	130		20	9.1	ug/L	10		6020B	Total/NA
Thallium	1.2	J	4.0	1.0	ug/L	4		6020B	Total/NA
Total Dissolved Solids	570		50	34	mg/L	1		SM 2540C	Total/NA
pH	6.6	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.08				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-109.2				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.16				mg/L	1		Field Sampling	Total/NA
Field pH	6.55				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-304 (Continued)

Lab Sample ID: 310-266692-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field Conductivity	910				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	16.1				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	4.74				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-305

Lab Sample ID: 310-266692-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	29		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	440		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	2.7		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	40		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	1500		100	76	ug/L	1		6020B	Total/NA
Calcium	150		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	11		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	35000		100	36	ug/L	1		6020B	Total/NA
Lithium	20		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	2.0		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	840		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.00				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-46.3				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.20				mg/L	1		Field Sampling	Total/NA
Field pH	6.19				SU	1		Field Sampling	Total/NA
Field Conductivity	1278				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.0				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	3.16				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-306

Lab Sample ID: 310-266692-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	130		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	34		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	67		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	3100		100	76	ug/L	1		6020B	Total/NA
Calcium	99		0.50	0.19	mg/L	1		6020B	Total/NA
Iron	57	J	100	36	ug/L	1		6020B	Total/NA
Lithium	35		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	36		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	520		50	34	mg/L	1		SM 2540C	Total/NA
pH	8.1	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.13				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-102.7				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.22				mg/L	1		Field Sampling	Total/NA
Field pH	8.78				SU	1		Field Sampling	Total/NA
Field Conductivity	604				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	14.7				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	6.14				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307

Lab Sample ID: 310-266692-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21		5.0	2.3	mg/L	5		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-307 (Continued)

Lab Sample ID: 310-266692-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	240		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	10		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	54		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	3200		100	76	ug/L	1		6020B	Total/NA
Cadmium	0.18	J	0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	52		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	0.41	J	0.50	0.17	ug/L	1		6020B	Total/NA
Iron	610		100	36	ug/L	1		6020B	Total/NA
Lithium	95		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	290		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	460		50	34	mg/L	1		SM 2540C	Total/NA
pH	8.4	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.30				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-201.0				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	1.69				mg/L	1		Field Sampling	Total/NA
Field pH	8.18				SU	1		Field Sampling	Total/NA
Field Conductivity	745				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	14.9				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	6.27				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307A

Lab Sample ID: 310-266692-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	2000		100	36	ug/L	1		6020B	Total/NA
Lithium	8.6	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	3.8		2.0	0.91	ug/L	1		6020B	Total/NA
Groundwater Elevation	519.61				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-169.0				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.20				mg/L	1		Field Sampling	Total/NA
Field pH	7.53				SU	1		Field Sampling	Total/NA
Field Conductivity	503.5				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	9.8				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	11.21				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307B

Lab Sample ID: 310-266692-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1400		100	36	ug/L	1		6020B	Total/NA
Lithium	5.0	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	2.2		2.0	0.91	ug/L	1		6020B	Total/NA
Groundwater Elevation	518.14				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-141.9				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.30				mg/L	1		Field Sampling	Total/NA
Field pH	7.51				SU	1		Field Sampling	Total/NA
Field Conductivity	410.1				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.0				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	10.54				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-308

Lab Sample ID: 310-266692-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	35		5.0	2.3	mg/L	5		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-308 (Continued)

Lab Sample ID: 310-266692-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	700		100	42	mg/L	100		9056A	Total/NA
Arsenic	5.6		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	92		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	5900		1000	760	ug/L	10		6020B	Total/NA
Cadmium	0.17	J	0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	150		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	4.5		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	6000		100	36	ug/L	1		6020B	Total/NA
Lithium	220		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	260		20	9.1	ug/L	10		6020B	Total/NA
Total Dissolved Solids	1300		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	520.25				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-143.1				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.19				mg/L	1		Field Sampling	Total/NA
Field pH	7.14				SU	1		Field Sampling	Total/NA
Field Conductivity	1766				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	13.2				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	2.04				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-309

Lab Sample ID: 310-266692-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	29		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	83		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	89		8.0	2.1	ug/L	4		6020B	Total/NA
Barium	440		8.0	2.6	ug/L	4		6020B	Total/NA
Boron	11000		1000	760	ug/L	10		6020B	Total/NA
Calcium	310		2.0	0.76	mg/L	4		6020B	Total/NA
Cobalt	0.95	J	2.0	0.68	ug/L	4		6020B	Total/NA
Iron	75000		400	140	ug/L	4		6020B	Total/NA
Lithium	15	J	40	10	ug/L	4		6020B	Total/NA
Molybdenum	37		20	9.1	ug/L	10		6020B	Total/NA
Total Dissolved Solids	550		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.8	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.42				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-172.4				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.18				mg/L	1		Field Sampling	Total/NA
Field pH	6.92				SU	1		Field Sampling	Total/NA
Field Conductivity	1040				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	15.0				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	6.45				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-310

Lab Sample ID: 310-266692-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	210		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	45		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	360		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	130		100	76	ug/L	1		6020B	Total/NA
Calcium	100		0.50	0.19	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-310 (Continued)

Lab Sample ID: 310-266692-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	2.4		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	19000		100	36	ug/L	1		6020B	Total/NA
Molybdenum	3.3		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	560		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	520.39				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-190.6				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.11				mg/L	1		Field Sampling	Total/NA
Field pH	7.01				SU	1		Field Sampling	Total/NA
Field Conductivity	951				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	19.5				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	9.98				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-310A

Lab Sample ID: 310-266692-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.39	J	1.0	0.38	mg/L	5		9056A	Total/NA
Sulfate	87		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	0.82	J	2.0	0.53	ug/L	1		6020B	Total/NA
Barium	47		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	790		100	76	ug/L	1		6020B	Total/NA
Calcium	48		0.50	0.19	mg/L	1		6020B	Total/NA
Iron	49	J	100	36	ug/L	1		6020B	Total/NA
Lithium	38		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	7.4		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	570		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	517.75				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	4.9				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	4.78				mg/L	1		Field Sampling	Total/NA
Field pH	7.30				SU	1		Field Sampling	Total/NA
Field Conductivity	982				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	19.2				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	15.32				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-311

Lab Sample ID: 310-266692-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	150		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	5.5		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	160		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	1400		100	76	ug/L	1		6020B	Total/NA
Calcium	130		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	0.89		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	11000		100	36	ug/L	1		6020B	Total/NA
Molybdenum	5.8		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	560		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.68				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-152.5				mV	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-311 (Continued)

Lab Sample ID: 310-266692-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Oxygen, Dissolved	0.14				mg/L	1		Field Sampling	Total/NA
Field pH	6.93				SU	1		Field Sampling	Total/NA
Field Conductivity	961				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	14.1				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	9.47				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-312

Lab Sample ID: 310-266692-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	20000		100	36	ug/L	1		6020B	Total/NA
Lithium	18		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	37		2.0	0.91	ug/L	1		6020B	Total/NA
Groundwater Elevation	518.03				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-161.4				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.13				mg/L	1		Field Sampling	Total/NA
Field pH	6.83				SU	1		Field Sampling	Total/NA
Field Conductivity	884				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	11.3				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	5.26				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313

Lab Sample ID: 310-266692-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	14000		100	36	ug/L	1		6020B	Total/NA
Lithium	13		10	2.5	ug/L	1		6020B	Total/NA
Magnesium	15000		500	150	ug/L	1		6020B	Total/NA
Manganese	5900		40	14	ug/L	4		6020B	Total/NA
Molybdenum	52		8.0	3.6	ug/L	4		6020B	Total/NA
Bicarbonate Alkalinity as CaCO3	250		5.0	2.5	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	250		5.0	2.5	mg/L	1		SM 2320B	Total/NA
Groundwater Elevation	518.18				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-168.8				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.11				mg/L	1		Field Sampling	Total/NA
Field pH	7.00				SU	1		Field Sampling	Total/NA
Field Conductivity	823				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	11.2				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	9.58				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313A

Lab Sample ID: 310-266692-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	2000		100	36	ug/L	1		6020B	Total/NA
Lithium	4.8	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	3.5		2.0	0.91	ug/L	1		6020B	Total/NA
Groundwater Elevation	518.05				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-176.3				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.69				mg/L	1		Field Sampling	Total/NA
Field pH	7.49				SU	1		Field Sampling	Total/NA
Field Conductivity	433.6				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	8.9				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	3.23				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-313B

Lab Sample ID: 310-266692-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	2600		100	36	ug/L	1		6020B	Total/NA
Lithium	5.9	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	11		2.0	0.91	ug/L	1		6020B	Total/NA
Groundwater Elevation	518.12				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-135.6				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.29				mg/L	1		Field Sampling	Total/NA
Field pH	7.13				SU	1		Field Sampling	Total/NA
Field Conductivity	546.2				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	8.8				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	6.20				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-314

Lab Sample ID: 310-266692-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	18		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	130		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	4.3		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	330		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	160		100	76	ug/L	1		6020B	Total/NA
Calcium	180		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	0.37	J	0.50	0.17	ug/L	1		6020B	Total/NA
Iron	26000		100	36	ug/L	1		6020B	Total/NA
Lithium	4.6	J	10	2.5	ug/L	1		6020B	Total/NA
Total Dissolved Solids	720		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.8	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.02				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-130.7				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.35				mg/L	1		Field Sampling	Total/NA
Field pH	6.69				SU	1		Field Sampling	Total/NA
Field Conductivity	1313				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	13.2				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	18.75				NTU	1		Field Sampling	Total/NA

Client Sample ID: Field Blank

Lab Sample ID: 310-266692-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	7.6	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-301

Lab Sample ID: 310-266692-1

Date Collected: 10/03/23 15:25

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15		5.0	2.3	mg/L			10/18/23 19:48	5
Fluoride	0.38	J	1.0	0.38	mg/L			10/18/23 19:48	5
Sulfate	770		100	42	mg/L			10/19/23 09:32	100

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		10/11/23 10:00	10/16/23 16:42	1
Arsenic	3.8		2.0	0.53	ug/L		10/11/23 10:00	10/16/23 16:42	1
Barium	33		2.0	0.64	ug/L		10/11/23 10:00	10/16/23 16:42	1
Beryllium	<0.33		1.0	0.33	ug/L		10/11/23 10:00	10/16/23 16:42	1
Boron	5200		400	300	ug/L		10/11/23 10:00	10/17/23 19:52	4
Cadmium	<0.10		0.20	0.10	ug/L		10/11/23 10:00	10/16/23 16:42	1
Calcium	150		0.50	0.19	mg/L		10/11/23 10:00	10/16/23 16:42	1
Chromium	<1.1		5.0	1.1	ug/L		10/11/23 10:00	10/16/23 16:42	1
Cobalt	12		0.50	0.17	ug/L		10/11/23 10:00	10/16/23 16:42	1
Iron	8200		100	36	ug/L		10/11/23 10:00	10/16/23 16:42	1
Lead	<0.24		0.50	0.24	ug/L		10/11/23 10:00	10/16/23 16:42	1
Lithium	13		10	2.5	ug/L		10/11/23 10:00	10/16/23 16:42	1
Molybdenum	65		8.0	3.6	ug/L		10/11/23 10:00	10/17/23 19:52	4
Selenium	<1.4		5.0	1.4	ug/L		10/11/23 10:00	10/16/23 16:42	1
Thallium	<0.26		1.0	0.26	ug/L		10/11/23 10:00	10/16/23 16:42	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1600		250	170	mg/L			10/09/23 15:10	1
pH (SM 4500 H+ B)	7.8	HF	1.0	1.0	SU			10/07/23 08:36	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0120	U	0.0761	0.0761	1.00	0.146	pCi/L	10/11/23 10:21	11/02/23 18:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	88.8		30 - 110					10/11/23 10:21	11/02/23 18:27	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.142	U	0.381	0.381	1.00	0.671	pCi/L	10/11/23 10:26	10/27/23 16:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	88.8		30 - 110					10/11/23 10:26	10/27/23 16:49	1
Y Carrier	83.0		30 - 110					10/11/23 10:26	10/27/23 16:49	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-301
 Date Collected: 10/03/23 15:25
 Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-1
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.154	U	0.389	0.389	5.00	0.671	pCi/L		11/07/23 16:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.33				ft			10/03/23 15:25	1
Oxidation Reduction Potential	-90.4				mV			10/03/23 15:25	1
Oxygen, Dissolved	0.35				mg/L			10/03/23 15:25	1
Field pH	6.76				SU			10/03/23 15:25	1
Field Conductivity	2278				umhos/cm			10/03/23 15:25	1
Field Temperature	12.9				Degrees C			10/03/23 15:25	1
Field Turbidity	5.90				NTU			10/03/23 15:25	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-302

Lab Sample ID: 310-266692-2

Date Collected: 10/03/23 14:25

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8	J	5.0	2.3	mg/L			10/18/23 20:03	5
Fluoride	<0.38		1.0	0.38	mg/L			10/18/23 20:03	5
Sulfate	220		5.0	2.1	mg/L			10/18/23 20:03	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		10/11/23 10:00	10/16/23 16:58	1
Arsenic	3.8		2.0	0.53	ug/L		10/11/23 10:00	10/16/23 16:58	1
Barium	74		2.0	0.64	ug/L		10/11/23 10:00	10/16/23 16:58	1
Beryllium	<0.33		1.0	0.33	ug/L		10/11/23 10:00	10/16/23 16:58	1
Boron	1600		100	76	ug/L		10/11/23 10:00	10/16/23 16:58	1
Cadmium	0.19	J	0.20	0.10	ug/L		10/11/23 10:00	10/16/23 16:58	1
Calcium	120		0.50	0.19	mg/L		10/11/23 10:00	10/16/23 16:58	1
Chromium	<1.1		5.0	1.1	ug/L		10/11/23 10:00	10/16/23 16:58	1
Cobalt	7.6		0.50	0.17	ug/L		10/11/23 10:00	10/16/23 16:58	1
Iron	3400		100	36	ug/L		10/11/23 10:00	10/16/23 16:58	1
Lead	<0.24		0.50	0.24	ug/L		10/11/23 10:00	10/16/23 16:58	1
Lithium	40		10	2.5	ug/L		10/11/23 10:00	10/16/23 16:58	1
Molybdenum	180		2.0	0.91	ug/L		10/11/23 10:00	10/17/23 19:55	1
Selenium	<1.4		5.0	1.4	ug/L		10/11/23 10:00	10/16/23 16:58	1
Thallium	<0.26		1.0	0.26	ug/L		10/11/23 10:00	10/16/23 16:58	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	530		50	34	mg/L			10/09/23 15:10	1
pH (SM 4500 H+ B)	7.7	HF	1.0	1.0	SU			10/07/23 08:40	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium 226	0.0945	U	0.0803	0.0807	1.00	0.117	pCi/L	10/11/23 10:21	11/02/23 18:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	79.0		30 - 110					10/11/23 10:21	11/02/23 18:28	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium 228	0.138	U	0.383	0.383	1.00	0.680	pCi/L	10/11/23 10:26	10/27/23 16:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	79.0		30 - 110					10/11/23 10:26	10/27/23 16:49	1
Y Carrier	85.2		30 - 110					10/11/23 10:26	10/27/23 16:49	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-302
 Date Collected: 10/03/23 14:25
 Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-2
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.233	U	0.391	0.391	5.00	0.680	pCi/L		11/07/23 16:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.19				ft			10/03/23 14:25	1
Oxidation Reduction Potential	-53.4				mV			10/03/23 14:25	1
Oxygen, Dissolved	0.10				mg/L			10/03/23 14:25	1
Field pH	6.65				SU			10/03/23 14:25	1
Field Conductivity	797				umhos/cm			10/03/23 14:25	1
Field Temperature	12.6				Degrees C			10/03/23 14:25	1
Field Turbidity	6.25				NTU			10/03/23 14:25	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-302A

Lab Sample ID: 310-266692-3

Date Collected: 10/03/23 13:40

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	3900		100	36	ug/L		10/12/23 09:15	10/16/23 19:54	1
Lithium	4.6	J	10	2.5	ug/L		10/12/23 09:15	10/16/23 19:54	1
Molybdenum	8.5		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 20:19	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.12				ft			10/03/23 13:40	1
Oxidation Reduction Potential	-46.7				mV			10/03/23 13:40	1
Oxygen, Dissolved	0.46				mg/L			10/03/23 13:40	1
Field pH	7.11				SU			10/03/23 13:40	1
Field Conductivity	467.3				umhos/cm			10/03/23 13:40	1
Field Temperature	13.9				Degrees C			10/03/23 13:40	1
Field Turbidity	8.28				NTU			10/03/23 13:40	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-303
 Date Collected: 10/03/23 12:45
 Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-4
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		5.0	2.3	mg/L			10/18/23 20:17	5
Fluoride	<0.38		1.0	0.38	mg/L			10/18/23 20:17	5
Sulfate	190		5.0	2.1	mg/L			10/18/23 20:17	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		10/12/23 09:15	10/16/23 20:17	1
Arsenic	14		2.0	0.53	ug/L		10/12/23 09:15	10/16/23 20:17	1
Barium	120		2.0	0.64	ug/L		10/12/23 09:15	10/16/23 20:17	1
Beryllium	<0.33		1.0	0.33	ug/L		10/12/23 09:15	10/16/23 20:17	1
Boron	3700		100	76	ug/L		10/12/23 09:15	10/16/23 20:17	1
Cadmium	0.18	J	0.20	0.10	ug/L		10/12/23 09:15	10/16/23 20:17	1
Calcium	120		0.50	0.19	mg/L		10/12/23 09:15	10/16/23 20:17	1
Chromium	<1.1		5.0	1.1	ug/L		10/12/23 09:15	10/16/23 20:17	1
Cobalt	1.7		0.50	0.17	ug/L		10/12/23 09:15	10/16/23 20:17	1
Iron	11000		100	36	ug/L		10/12/23 09:15	10/16/23 20:17	1
Lead	<0.24		0.50	0.24	ug/L		10/12/23 09:15	10/16/23 20:17	1
Lithium	31		10	2.5	ug/L		10/12/23 09:15	10/16/23 20:17	1
Molybdenum	150		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 20:29	1
Selenium	<1.4		5.0	1.4	ug/L		10/12/23 09:15	10/16/23 20:17	1
Thallium	<0.26		1.0	0.26	ug/L		11/28/23 08:45	11/29/23 11:15	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	590		50	34	mg/L			10/09/23 15:10	1
pH (SM 4500 H+ B)	7.5	HF	1.0	1.0	SU			10/07/23 09:04	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.186		0.0949	0.0964	1.00	0.106	pCi/L	10/11/23 10:21	11/02/23 18:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	82.4		30 - 110					10/11/23 10:21	11/02/23 18:28	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.408	U	0.408	0.410	1.00	0.655	pCi/L	10/11/23 10:26	10/27/23 16:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	82.4		30 - 110					10/11/23 10:26	10/27/23 16:49	1
Y Carrier	83.0		30 - 110					10/11/23 10:26	10/27/23 16:49	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-303
 Date Collected: 10/03/23 12:45
 Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-4
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.594	U	0.419	0.421	5.00	0.655	pCi/L		11/07/23 16:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.06				ft			10/03/23 12:45	1
Oxidation Reduction Potential	140.2				mV			10/03/23 12:45	1
Oxygen, Dissolved	0.10				mg/L			10/03/23 12:45	1
Field pH	6.87				SU			10/03/23 12:45	1
Field Conductivity	954				umhos/cm			10/03/23 12:45	1
Field Temperature	12.2				Degrees C			10/03/23 12:45	1
Field Turbidity	4.90				NTU			10/03/23 12:45	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-304

Lab Sample ID: 310-266692-5

Date Collected: 10/03/23 11:40

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		5.0	2.3	mg/L			10/18/23 20:32	5
Fluoride	<0.38		1.0	0.38	mg/L			10/18/23 20:32	5
Sulfate	280		5.0	2.1	mg/L			10/18/23 20:32	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<4.0		8.0	4.0	ug/L		10/12/23 09:15	10/16/23 20:19	4
Arsenic	32		8.0	2.1	ug/L		10/12/23 09:15	10/16/23 20:19	4
Barium	160		8.0	2.6	ug/L		10/12/23 09:15	10/16/23 20:19	4
Beryllium	<1.3		4.0	1.3	ug/L		10/12/23 09:15	10/16/23 20:19	4
Boron	5800		1000	760	ug/L		10/12/23 09:15	10/17/23 20:32	10
Cadmium	<0.40		0.80	0.40	ug/L		10/12/23 09:15	10/16/23 20:19	4
Calcium	430		2.0	0.76	mg/L		10/12/23 09:15	10/16/23 20:19	4
Chromium	<4.4		20	4.4	ug/L		10/12/23 09:15	10/16/23 20:19	4
Cobalt	44		2.0	0.68	ug/L		10/12/23 09:15	10/16/23 20:19	4
Iron	130000		400	140	ug/L		10/12/23 09:15	10/16/23 20:19	4
Lead	0.97 J		2.0	0.96	ug/L		10/12/23 09:15	10/16/23 20:19	4
Lithium	500		40	10	ug/L		10/12/23 09:15	10/16/23 20:19	4
Molybdenum	130		20	9.1	ug/L		10/12/23 09:15	10/17/23 20:32	10
Selenium	<5.6		20	5.6	ug/L		10/12/23 09:15	10/16/23 20:19	4
Thallium	1.2 J		4.0	1.0	ug/L		10/12/23 09:15	10/16/23 20:19	4

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	570		50	34	mg/L			10/09/23 15:10	1
pH (SM 4500 H+ B)	6.6	HF	1.0	1.0	SU			10/10/23 07:07	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0919	U	0.0903	0.0907	1.00	0.140	pCi/L	10/11/23 10:21	11/02/23 18:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	73.6		30 - 110					10/11/23 10:21	11/02/23 18:28	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.523	U	0.448	0.451	1.00	0.699	pCi/L	10/11/23 10:26	10/27/23 16:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	73.6		30 - 110					10/11/23 10:26	10/27/23 16:53	1
Y Carrier	84.5		30 - 110					10/11/23 10:26	10/27/23 16:53	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-304
 Date Collected: 10/03/23 11:40
 Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-5
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.615	U	0.457	0.460	5.00	0.699	pCi/L		11/07/23 16:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.08				ft			10/03/23 11:40	1
Oxidation Reduction Potential	-109.2				mV			10/03/23 11:40	1
Oxygen, Dissolved	0.16				mg/L			10/03/23 11:40	1
Field pH	6.55				SU			10/03/23 11:40	1
Field Conductivity	910				umhos/cm			10/03/23 11:40	1
Field Temperature	16.1				Degrees C			10/03/23 11:40	1
Field Turbidity	4.74				NTU			10/03/23 11:40	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-305

Lab Sample ID: 310-266692-6

Date Collected: 10/03/23 10:05

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29		5.0	2.3	mg/L			10/18/23 20:47	5
Fluoride	<0.38		1.0	0.38	mg/L			10/18/23 20:47	5
Sulfate	440		5.0	2.1	mg/L			10/18/23 20:47	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		10/12/23 09:15	10/16/23 20:22	1
Arsenic	2.7		2.0	0.53	ug/L		10/12/23 09:15	10/16/23 20:22	1
Barium	40		2.0	0.64	ug/L		10/12/23 09:15	10/16/23 20:22	1
Beryllium	<0.33		1.0	0.33	ug/L		10/12/23 09:15	10/16/23 20:22	1
Boron	1500		100	76	ug/L		10/12/23 09:15	10/16/23 20:22	1
Cadmium	<0.10		0.20	0.10	ug/L		10/12/23 09:15	10/16/23 20:22	1
Calcium	150		0.50	0.19	mg/L		10/12/23 09:15	10/16/23 20:22	1
Chromium	<1.1		5.0	1.1	ug/L		10/12/23 09:15	10/16/23 20:22	1
Cobalt	11		0.50	0.17	ug/L		10/12/23 09:15	10/16/23 20:22	1
Iron	35000		100	36	ug/L		10/12/23 09:15	10/16/23 20:22	1
Lead	<0.24		0.50	0.24	ug/L		10/12/23 09:15	10/16/23 20:22	1
Lithium	20		10	2.5	ug/L		10/12/23 09:15	10/16/23 20:22	1
Molybdenum	2.0		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 20:35	1
Selenium	<1.4		5.0	1.4	ug/L		10/12/23 09:15	10/16/23 20:22	1
Thallium	<0.26		1.0	0.26	ug/L		10/12/23 09:15	10/16/23 20:22	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	840		50	34	mg/L			10/09/23 15:10	1
pH (SM 4500 H+ B)	7.2	HF	1.0	1.0	SU			10/07/23 09:13	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.186		0.0969	0.0983	1.00	0.116	pCi/L	10/11/23 10:21	11/02/23 18:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	89.7		30 - 110					10/11/23 10:21	11/02/23 18:29	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.484	U	0.376	0.378	1.00	0.574	pCi/L	10/11/23 10:26	10/27/23 16:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	89.7		30 - 110					10/11/23 10:26	10/27/23 16:53	1
Y Carrier	83.4		30 - 110					10/11/23 10:26	10/27/23 16:53	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-305

Lab Sample ID: 310-266692-6

Date Collected: 10/03/23 10:05

Matrix: Water

Date Received: 10/06/23 16:15

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.670		0.388	0.391	5.00	0.574	pCi/L		11/07/23 16:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.00				ft			10/03/23 10:05	1
Oxidation Reduction Potential	-46.3				mV			10/03/23 10:05	1
Oxygen, Dissolved	0.20				mg/L			10/03/23 10:05	1
Field pH	6.19				SU			10/03/23 10:05	1
Field Conductivity	1278				umhos/cm			10/03/23 10:05	1
Field Temperature	12.0				Degrees C			10/03/23 10:05	1
Field Turbidity	3.16				NTU			10/03/23 10:05	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-306

Lab Sample ID: 310-266692-7

Date Collected: 10/04/23 15:30

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.3		5.0	2.3	mg/L			10/18/23 21:01	5
Fluoride	<0.38		1.0	0.38	mg/L			10/18/23 21:01	5
Sulfate	130		5.0	2.1	mg/L			10/18/23 21:01	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		10/12/23 09:15	10/16/23 20:25	1
Arsenic	34		2.0	0.53	ug/L		10/12/23 09:15	10/16/23 20:25	1
Barium	67		2.0	0.64	ug/L		10/12/23 09:15	10/16/23 20:25	1
Beryllium	<0.33		1.0	0.33	ug/L		10/12/23 09:15	10/16/23 20:25	1
Boron	3100		100	76	ug/L		10/12/23 09:15	10/16/23 20:25	1
Cadmium	<0.10		0.20	0.10	ug/L		10/12/23 09:15	10/16/23 20:25	1
Calcium	99		0.50	0.19	mg/L		10/12/23 09:15	10/16/23 20:25	1
Chromium	<1.1		5.0	1.1	ug/L		10/12/23 09:15	10/16/23 20:25	1
Cobalt	<0.17		0.50	0.17	ug/L		10/12/23 09:15	10/16/23 20:25	1
Iron	57 J		100	36	ug/L		10/12/23 09:15	10/16/23 20:25	1
Lead	<0.24		0.50	0.24	ug/L		10/12/23 09:15	10/16/23 20:25	1
Lithium	35		10	2.5	ug/L		10/12/23 09:15	10/16/23 20:25	1
Molybdenum	36		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 20:39	1
Selenium	<1.4		5.0	1.4	ug/L		10/12/23 09:15	10/16/23 20:25	1
Thallium	<0.26		1.0	0.26	ug/L		10/12/23 09:15	10/16/23 20:25	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	520		50	34	mg/L			10/10/23 13:38	1
pH (SM 4500 H+ B)	8.1	HF	1.0	1.0	SU			10/07/23 09:22	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.178		0.0966	0.0979	1.00	0.118	pCi/L	10/11/23 10:21	11/02/23 18:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	87.8		30 - 110					10/11/23 10:21	11/02/23 18:30	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	1.21		0.498	0.511	1.00	0.650	pCi/L	10/11/23 10:26	10/27/23 16:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	87.8		30 - 110					10/11/23 10:26	10/27/23 16:53	1
Y Carrier	83.7		30 - 110					10/11/23 10:26	10/27/23 16:53	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-306
 Date Collected: 10/04/23 15:30
 Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-7
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.39		0.507	0.520	5.00	0.650	pCi/L		11/07/23 16:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.13				ft			10/04/23 15:30	1
Oxidation Reduction Potential	-102.7				mV			10/04/23 15:30	1
Oxygen, Dissolved	0.22				mg/L			10/04/23 15:30	1
Field pH	8.78				SU			10/04/23 15:30	1
Field Conductivity	604				umhos/cm			10/04/23 15:30	1
Field Temperature	14.7				Degrees C			10/04/23 15:30	1
Field Turbidity	6.14				NTU			10/04/23 15:30	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-307

Lab Sample ID: 310-266692-8

Date Collected: 10/04/23 10:35

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		5.0	2.3	mg/L			10/18/23 21:45	5
Fluoride	<0.38		1.0	0.38	mg/L			10/18/23 21:45	5
Sulfate	240		5.0	2.1	mg/L			10/18/23 21:45	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		10/12/23 09:15	10/16/23 20:27	1
Arsenic	10		2.0	0.53	ug/L		10/12/23 09:15	10/16/23 20:27	1
Barium	54		2.0	0.64	ug/L		10/12/23 09:15	10/16/23 20:27	1
Beryllium	<0.33		1.0	0.33	ug/L		10/12/23 09:15	10/16/23 20:27	1
Boron	3200		100	76	ug/L		10/12/23 09:15	10/16/23 20:27	1
Cadmium	0.18	J	0.20	0.10	ug/L		10/12/23 09:15	10/16/23 20:27	1
Calcium	52		0.50	0.19	mg/L		10/12/23 09:15	10/16/23 20:27	1
Chromium	<1.1		5.0	1.1	ug/L		10/12/23 09:15	10/16/23 20:27	1
Cobalt	0.41	J	0.50	0.17	ug/L		10/12/23 09:15	10/16/23 20:27	1
Iron	610		100	36	ug/L		10/12/23 09:15	10/16/23 20:27	1
Lead	<0.24		0.50	0.24	ug/L		10/12/23 09:15	10/16/23 20:27	1
Lithium	95		10	2.5	ug/L		10/12/23 09:15	10/16/23 20:27	1
Molybdenum	290		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 20:42	1
Selenium	<1.4		5.0	1.4	ug/L		10/12/23 09:15	10/16/23 20:27	1
Thallium	<0.26		1.0	0.26	ug/L		10/12/23 09:15	10/16/23 20:27	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	460		50	34	mg/L			10/10/23 13:38	1
pH (SM 4500 H+ B)	8.4	HF	1.0	1.0	SU			10/07/23 09:26	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0550	U	0.0698	0.0700	1.00	0.115	pCi/L	10/11/23 10:21	11/02/23 18:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	68.0		30 - 110					10/11/23 10:21	11/02/23 18:30	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.477	U	0.462	0.464	1.00	0.734	pCi/L	10/11/23 10:26	10/27/23 16:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	68.0		30 - 110					10/11/23 10:26	10/27/23 16:53	1
Y Carrier	82.2		30 - 110					10/11/23 10:26	10/27/23 16:53	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-307

Lab Sample ID: 310-266692-8

Date Collected: 10/04/23 10:35

Matrix: Water

Date Received: 10/06/23 16:15

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.532	U	0.467	0.469	5.00	0.734	pCi/L		11/07/23 16:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.30				ft			10/04/23 10:35	1
Oxidation Reduction Potential	-201.0				mV			10/04/23 10:35	1
Oxygen, Dissolved	1.69				mg/L			10/04/23 10:35	1
Field pH	8.18				SU			10/04/23 10:35	1
Field Conductivity	745				umhos/cm			10/04/23 10:35	1
Field Temperature	14.9				Degrees C			10/04/23 10:35	1
Field Turbidity	6.27				NTU			10/04/23 10:35	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-307A

Lab Sample ID: 310-266692-9

Date Collected: 10/04/23 09:50

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2000		100	36	ug/L		10/12/23 09:15	10/16/23 20:30	1
Lithium	8.6	J	10	2.5	ug/L		10/12/23 09:15	10/16/23 20:30	1
Molybdenum	3.8		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 20:59	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	519.61				ft			10/04/23 09:50	1
Oxidation Reduction Potential	-169.0				mV			10/04/23 09:50	1
Oxygen, Dissolved	0.20				mg/L			10/04/23 09:50	1
Field pH	7.53				SU			10/04/23 09:50	1
Field Conductivity	503.5				umhos/cm			10/04/23 09:50	1
Field Temperature	9.8				Degrees C			10/04/23 09:50	1
Field Turbidity	11.21				NTU			10/04/23 09:50	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-307B

Lab Sample ID: 310-266692-10

Date Collected: 10/04/23 11:30

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1400		100	36	ug/L		10/12/23 09:15	10/16/23 20:32	1
Lithium	5.0	J	10	2.5	ug/L		10/12/23 09:15	10/16/23 20:32	1
Molybdenum	2.2		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 21:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.14				ft			10/04/23 11:30	1
Oxidation Reduction Potential	-141.9				mV			10/04/23 11:30	1
Oxygen, Dissolved	0.30				mg/L			10/04/23 11:30	1
Field pH	7.51				SU			10/04/23 11:30	1
Field Conductivity	410.1				umhos/cm			10/04/23 11:30	1
Field Temperature	12.0				Degrees C			10/04/23 11:30	1
Field Turbidity	10.54				NTU			10/04/23 11:30	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-308

Lab Sample ID: 310-266692-11

Date Collected: 10/03/23 11:00

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35		5.0	2.3	mg/L			10/18/23 22:00	5
Fluoride	<0.38		1.0	0.38	mg/L			10/18/23 22:00	5
Sulfate	700		100	42	mg/L			10/19/23 09:46	100

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		10/12/23 09:15	10/16/23 20:35	1
Arsenic	5.6		2.0	0.53	ug/L		10/12/23 09:15	10/16/23 20:35	1
Barium	92		2.0	0.64	ug/L		10/12/23 09:15	10/16/23 20:35	1
Beryllium	<0.33		1.0	0.33	ug/L		10/12/23 09:15	10/16/23 20:35	1
Boron	5900		1000	760	ug/L		10/12/23 09:15	10/17/23 21:06	10
Cadmium	0.17	J	0.20	0.10	ug/L		10/12/23 09:15	10/16/23 20:35	1
Calcium	150		0.50	0.19	mg/L		10/12/23 09:15	10/16/23 20:35	1
Chromium	<1.1		5.0	1.1	ug/L		10/12/23 09:15	10/16/23 20:35	1
Cobalt	4.5		0.50	0.17	ug/L		10/12/23 09:15	10/16/23 20:35	1
Iron	6000		100	36	ug/L		10/12/23 09:15	10/16/23 20:35	1
Lead	<0.24		0.50	0.24	ug/L		10/12/23 09:15	10/16/23 20:35	1
Lithium	220		10	2.5	ug/L		10/12/23 09:15	10/16/23 20:35	1
Molybdenum	260		20	9.1	ug/L		10/12/23 09:15	10/17/23 21:06	10
Selenium	<1.4		5.0	1.4	ug/L		10/12/23 09:15	10/16/23 20:35	1
Thallium	<0.26		1.0	0.26	ug/L		10/12/23 09:15	10/16/23 20:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1300		50	34	mg/L			10/09/23 15:10	1
pH (SM 4500 H+ B)	7.6	HF	1.0	1.0	SU			10/07/23 09:30	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0254	U	0.0648	0.0648	1.00	0.122	pCi/L	10/11/23 10:21	11/02/23 18:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	82.4		30 - 110					10/11/23 10:21	11/02/23 18:30	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.319	U	0.405	0.407	1.00	0.674	pCi/L	10/11/23 10:26	10/27/23 16:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	82.4		30 - 110					10/11/23 10:26	10/27/23 16:53	1
Y Carrier	83.4		30 - 110					10/11/23 10:26	10/27/23 16:53	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-308
 Date Collected: 10/03/23 11:00
 Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-11
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.344	U	0.410	0.412	5.00	0.674	pCi/L		11/07/23 16:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.25				ft			10/03/23 11:00	1
Oxidation Reduction Potential	-143.1				mV			10/03/23 11:00	1
Oxygen, Dissolved	0.19				mg/L			10/03/23 11:00	1
Field pH	7.14				SU			10/03/23 11:00	1
Field Conductivity	1766				umhos/cm			10/03/23 11:00	1
Field Temperature	13.2				Degrees C			10/03/23 11:00	1
Field Turbidity	2.04				NTU			10/03/23 11:00	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-309

Lab Sample ID: 310-266692-12

Date Collected: 10/04/23 16:30

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29		5.0	2.3	mg/L			10/18/23 22:14	5
Fluoride	<0.38		1.0	0.38	mg/L			10/18/23 22:14	5
Sulfate	83		5.0	2.1	mg/L			10/18/23 22:14	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<4.0		8.0	4.0	ug/L		10/12/23 09:15	10/16/23 20:38	4
Arsenic	89		8.0	2.1	ug/L		10/12/23 09:15	10/16/23 20:38	4
Barium	440		8.0	2.6	ug/L		10/12/23 09:15	10/16/23 20:38	4
Beryllium	<1.3		4.0	1.3	ug/L		10/12/23 09:15	10/16/23 20:38	4
Boron	11000		1000	760	ug/L		10/12/23 09:15	10/17/23 21:09	10
Cadmium	<0.40		0.80	0.40	ug/L		10/12/23 09:15	10/16/23 20:38	4
Calcium	310		2.0	0.76	mg/L		10/12/23 09:15	10/16/23 20:38	4
Chromium	<4.4		20	4.4	ug/L		10/12/23 09:15	10/16/23 20:38	4
Cobalt	0.95 J		2.0	0.68	ug/L		10/12/23 09:15	10/16/23 20:38	4
Iron	75000		400	140	ug/L		10/12/23 09:15	10/16/23 20:38	4
Lead	<0.96		2.0	0.96	ug/L		10/12/23 09:15	10/16/23 20:38	4
Lithium	15 J		40	10	ug/L		10/12/23 09:15	10/16/23 20:38	4
Molybdenum	37		20	9.1	ug/L		10/12/23 09:15	10/17/23 21:09	10
Selenium	<5.6		20	5.6	ug/L		10/12/23 09:15	10/16/23 20:38	4
Thallium	<1.0		4.0	1.0	ug/L		10/12/23 09:15	10/16/23 20:38	4

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	550		50	34	mg/L			10/10/23 13:38	1
pH (SM 4500 H+ B)	7.8 HF		1.0	1.0	SU			10/07/23 09:35	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.215		0.133	0.135	1.00	0.177	pCi/L	10/11/23 10:21	11/02/23 18:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	85.8		30 - 110					10/11/23 10:21	11/02/23 18:30	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	4.56 G		0.999	1.08	1.00	1.07	pCi/L	10/11/23 10:26	10/27/23 16:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	85.8		30 - 110					10/11/23 10:26	10/27/23 16:54	1
Y Carrier	83.7		30 - 110					10/11/23 10:26	10/27/23 16:54	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-309
 Date Collected: 10/04/23 16:30
 Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-12
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	4.77		1.01	1.09	5.00	1.07	pCi/L		11/07/23 16:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.42				ft			10/04/23 16:30	1
Oxidation Reduction Potential	-172.4				mV			10/04/23 16:30	1
Oxygen, Dissolved	0.18				mg/L			10/04/23 16:30	1
Field pH	6.92				SU			10/04/23 16:30	1
Field Conductivity	1040				umhos/cm			10/04/23 16:30	1
Field Temperature	15.0				Degrees C			10/04/23 16:30	1
Field Turbidity	6.45				NTU			10/04/23 16:30	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-310

Lab Sample ID: 310-266692-13

Date Collected: 10/05/23 11:45

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		5.0	2.3	mg/L			10/18/23 22:29	5
Fluoride	<0.38		1.0	0.38	mg/L			10/18/23 22:29	5
Sulfate	210		5.0	2.1	mg/L			10/18/23 22:29	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		10/12/23 09:15	10/16/23 20:59	1
Arsenic	45		2.0	0.53	ug/L		10/12/23 09:15	10/16/23 20:59	1
Barium	360		2.0	0.64	ug/L		10/12/23 09:15	10/16/23 20:59	1
Beryllium	<0.33		1.0	0.33	ug/L		10/12/23 09:15	10/16/23 20:59	1
Boron	130		100	76	ug/L		10/12/23 09:15	10/16/23 20:59	1
Cadmium	<0.10		0.20	0.10	ug/L		10/12/23 09:15	10/16/23 20:59	1
Calcium	100		0.50	0.19	mg/L		10/12/23 09:15	10/16/23 20:59	1
Chromium	<1.1		5.0	1.1	ug/L		10/12/23 09:15	10/16/23 20:59	1
Cobalt	2.4		0.50	0.17	ug/L		10/12/23 09:15	10/16/23 20:59	1
Iron	19000		100	36	ug/L		10/12/23 09:15	10/16/23 20:59	1
Lead	<0.24		0.50	0.24	ug/L		10/12/23 09:15	10/16/23 20:59	1
Lithium	<2.5		10	2.5	ug/L		10/12/23 09:15	10/16/23 20:59	1
Molybdenum	3.3		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 21:13	1
Selenium	<1.4		5.0	1.4	ug/L		10/12/23 09:15	10/16/23 20:59	1
Thallium	<0.26		1.0	0.26	ug/L		10/12/23 09:15	10/16/23 20:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	560		50	34	mg/L			10/11/23 14:04	1
pH (SM 4500 H+ B)	7.7	HF	1.0	1.0	SU			10/07/23 09:40	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.350		0.117	0.121	1.00	0.0986	pCi/L	10/11/23 10:21	11/02/23 18:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	93.2		30 - 110					10/11/23 10:21	11/02/23 18:30	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	1.82		0.587	0.611	1.00	0.745	pCi/L	10/11/23 10:26	10/27/23 16:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	93.2		30 - 110					10/11/23 10:26	10/27/23 16:54	1
Y Carrier	85.2		30 - 110					10/11/23 10:26	10/27/23 16:54	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-310
 Date Collected: 10/05/23 11:45
 Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-13
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	2.17		0.599	0.623	5.00	0.745	pCi/L		11/07/23 16:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.39				ft			10/05/23 11:45	1
Oxidation Reduction Potential	-190.6				mV			10/05/23 11:45	1
Oxygen, Dissolved	0.11				mg/L			10/05/23 11:45	1
Field pH	7.01				SU			10/05/23 11:45	1
Field Conductivity	951				umhos/cm			10/05/23 11:45	1
Field Temperature	19.5				Degrees C			10/05/23 11:45	1
Field Turbidity	9.98				NTU			10/05/23 11:45	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-310A

Lab Sample ID: 310-266692-14

Date Collected: 10/05/23 12:15

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		5.0	2.3	mg/L			10/19/23 10:30	5
Fluoride	0.39	J	1.0	0.38	mg/L			10/19/23 10:30	5
Sulfate	87		5.0	2.1	mg/L			10/19/23 10:30	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		10/12/23 09:15	10/16/23 21:05	1
Arsenic	0.82	J	2.0	0.53	ug/L		10/12/23 09:15	10/16/23 21:05	1
Barium	47		2.0	0.64	ug/L		10/12/23 09:15	10/16/23 21:05	1
Beryllium	<0.33		1.0	0.33	ug/L		10/12/23 09:15	10/16/23 21:05	1
Boron	790		100	76	ug/L		10/12/23 09:15	10/16/23 21:05	1
Cadmium	<0.10		0.20	0.10	ug/L		10/12/23 09:15	10/16/23 21:05	1
Calcium	48		0.50	0.19	mg/L		10/12/23 09:15	10/16/23 21:05	1
Chromium	<1.1		5.0	1.1	ug/L		10/12/23 09:15	10/16/23 21:05	1
Cobalt	<0.17		0.50	0.17	ug/L		10/12/23 09:15	10/16/23 21:05	1
Iron	49	J	100	36	ug/L		10/12/23 09:15	10/16/23 21:05	1
Lead	<0.24		0.50	0.24	ug/L		10/12/23 09:15	10/16/23 21:05	1
Lithium	38		10	2.5	ug/L		10/12/23 09:15	10/16/23 21:05	1
Molybdenum	7.4		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 21:19	1
Selenium	<1.4		5.0	1.4	ug/L		10/12/23 09:15	10/16/23 21:05	1
Thallium	<0.26		1.0	0.26	ug/L		10/12/23 09:15	10/16/23 21:05	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	570		50	34	mg/L			10/11/23 14:04	1
pH (SM 4500 H+ B)	7.2	HF	1.0	1.0	SU			10/07/23 09:17	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.462		0.139	0.145	1.00	0.111	pCi/L	10/11/23 10:21	11/02/23 18:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	86.3		30 - 110					10/11/23 10:21	11/02/23 18:30	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	1.07		0.478	0.488	1.00	0.635	pCi/L	10/11/23 10:26	10/27/23 16:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	86.3		30 - 110					10/11/23 10:26	10/27/23 16:54	1
Y Carrier	84.5		30 - 110					10/11/23 10:26	10/27/23 16:54	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-310A

Lab Sample ID: 310-266692-14

Date Collected: 10/05/23 12:15

Matrix: Water

Date Received: 10/06/23 16:15

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.53		0.498	0.509	5.00	0.635	pCi/L		11/07/23 16:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	517.75				ft			10/05/23 12:15	1
Oxidation Reduction Potential	4.9				mV			10/05/23 12:15	1
Oxygen, Dissolved	4.78				mg/L			10/05/23 12:15	1
Field pH	7.30				SU			10/05/23 12:15	1
Field Conductivity	982				umhos/cm			10/05/23 12:15	1
Field Temperature	19.2				Degrees C			10/05/23 12:15	1
Field Turbidity	15.32				NTU			10/05/23 12:15	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-311

Lab Sample ID: 310-266692-15

Date Collected: 10/05/23 10:45

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		5.0	2.3	mg/L			10/19/23 11:15	5
Fluoride	<0.38		1.0	0.38	mg/L			10/19/23 11:15	5
Sulfate	150		5.0	2.1	mg/L			10/19/23 11:15	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		10/12/23 09:15	10/16/23 21:08	1
Arsenic	5.5		2.0	0.53	ug/L		10/12/23 09:15	10/16/23 21:08	1
Barium	160		2.0	0.64	ug/L		10/12/23 09:15	10/16/23 21:08	1
Beryllium	<0.33		1.0	0.33	ug/L		10/12/23 09:15	10/16/23 21:08	1
Boron	1400		100	76	ug/L		10/12/23 09:15	10/16/23 21:08	1
Cadmium	<0.10		0.20	0.10	ug/L		10/12/23 09:15	10/16/23 21:08	1
Calcium	130		0.50	0.19	mg/L		10/12/23 09:15	10/16/23 21:08	1
Chromium	<1.1		5.0	1.1	ug/L		10/12/23 09:15	10/16/23 21:08	1
Cobalt	0.89		0.50	0.17	ug/L		10/12/23 09:15	10/16/23 21:08	1
Iron	11000		100	36	ug/L		10/12/23 09:15	10/16/23 21:08	1
Lead	<0.24		0.50	0.24	ug/L		10/12/23 09:15	10/16/23 21:08	1
Lithium	<2.5		10	2.5	ug/L		10/12/23 09:15	10/16/23 21:08	1
Molybdenum	5.8		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 21:23	1
Selenium	<1.4		5.0	1.4	ug/L		10/12/23 09:15	10/16/23 21:08	1
Thallium	<0.26		1.0	0.26	ug/L		10/12/23 09:15	10/16/23 21:08	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	560		50	34	mg/L			10/11/23 14:04	1
pH (SM 4500 H+ B)	7.7	HF	1.0	1.0	SU			10/07/23 09:58	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.107	U	0.112	0.112	1.00	0.176	pCi/L	10/11/23 10:21	11/02/23 18:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	81.7		30 - 110					10/11/23 10:21	11/02/23 18:37	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	1.20		0.618	0.627	1.00	0.854	pCi/L	10/11/23 10:26	10/27/23 16:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	81.7		30 - 110					10/11/23 10:26	10/27/23 16:56	1
Y Carrier	84.1		30 - 110					10/11/23 10:26	10/27/23 16:56	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-311
 Date Collected: 10/05/23 10:45
 Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-15
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.30		0.628	0.637	5.00	0.854	pCi/L		11/07/23 16:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.68				ft			10/05/23 10:45	1
Oxidation Reduction Potential	-152.5				mV			10/05/23 10:45	1
Oxygen, Dissolved	0.14				mg/L			10/05/23 10:45	1
Field pH	6.93				SU			10/05/23 10:45	1
Field Conductivity	961				umhos/cm			10/05/23 10:45	1
Field Temperature	14.1				Degrees C			10/05/23 10:45	1
Field Turbidity	9.47				NTU			10/05/23 10:45	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-312

Lab Sample ID: 310-266692-16

Date Collected: 10/03/23 09:50

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	20000		100	36	ug/L		10/12/23 09:15	10/16/23 21:10	1
Lithium	18		10	2.5	ug/L		10/12/23 09:15	10/16/23 21:10	1
Molybdenum	37		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 21:26	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.03				ft			10/03/23 09:50	1
Oxidation Reduction Potential	-161.4				mV			10/03/23 09:50	1
Oxygen, Dissolved	0.13				mg/L			10/03/23 09:50	1
Field pH	6.83				SU			10/03/23 09:50	1
Field Conductivity	884				umhos/cm			10/03/23 09:50	1
Field Temperature	11.3				Degrees C			10/03/23 09:50	1
Field Turbidity	5.26				NTU			10/03/23 09:50	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-313

Lab Sample ID: 310-266692-17

Date Collected: 10/04/23 14:15

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	14000		100	36	ug/L		10/12/23 09:15	10/16/23 21:12	1
Lithium	13		10	2.5	ug/L		10/12/23 09:15	10/16/23 21:12	1
Magnesium	15000		500	150	ug/L		10/12/23 09:15	10/16/23 21:12	1
Manganese	5900		40	14	ug/L		10/12/23 09:15	10/17/23 21:29	4
Molybdenum	52		8.0	3.6	ug/L		10/12/23 09:15	10/17/23 21:29	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	250		5.0	2.5	mg/L			10/11/23 16:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<2.5		5.0	2.5	mg/L			10/11/23 16:22	1
Total Alkalinity as CaCO3 (SM 2320B)	250		5.0	2.5	mg/L			10/11/23 16:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.18				ft			10/04/23 14:15	1
Oxidation Reduction Potential	-168.8				mV			10/04/23 14:15	1
Oxygen, Dissolved	0.11				mg/L			10/04/23 14:15	1
Field pH	7.00				SU			10/04/23 14:15	1
Field Conductivity	823				umhos/cm			10/04/23 14:15	1
Field Temperature	11.2				Degrees C			10/04/23 14:15	1
Field Turbidity	9.58				NTU			10/04/23 14:15	1



Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-313A

Lab Sample ID: 310-266692-18

Date Collected: 10/04/23 13:35

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2000		100	36	ug/L		10/12/23 09:15	10/16/23 21:15	1
Lithium	4.8	J	10	2.5	ug/L		10/12/23 09:15	10/16/23 21:15	1
Molybdenum	3.5		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 21:47	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.05				ft			10/04/23 13:35	1
Oxidation Reduction Potential	-176.3				mV			10/04/23 13:35	1
Oxygen, Dissolved	0.69				mg/L			10/04/23 13:35	1
Field pH	7.49				SU			10/04/23 13:35	1
Field Conductivity	433.6				umhos/cm			10/04/23 13:35	1
Field Temperature	8.9				Degrees C			10/04/23 13:35	1
Field Turbidity	3.23				NTU			10/04/23 13:35	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-313B

Lab Sample ID: 310-266692-19

Date Collected: 10/04/23 12:50

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2600		100	36	ug/L		10/12/23 09:15	10/16/23 21:17	1
Lithium	5.9	J	10	2.5	ug/L		10/12/23 09:15	10/16/23 21:17	1
Molybdenum	11		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 21:50	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.12				ft			10/04/23 12:50	1
Oxidation Reduction Potential	-135.6				mV			10/04/23 12:50	1
Oxygen, Dissolved	0.29				mg/L			10/04/23 12:50	1
Field pH	7.13				SU			10/04/23 12:50	1
Field Conductivity	546.2				umhos/cm			10/04/23 12:50	1
Field Temperature	8.8				Degrees C			10/04/23 12:50	1
Field Turbidity	6.20				NTU			10/04/23 12:50	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-314

Lab Sample ID: 310-266692-20

Date Collected: 10/05/23 09:45

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18		5.0	2.3	mg/L			10/19/23 11:29	5
Fluoride	<0.38		1.0	0.38	mg/L			10/19/23 11:29	5
Sulfate	130		5.0	2.1	mg/L			10/19/23 11:29	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		10/12/23 09:15	10/16/23 21:19	1
Arsenic	4.3		2.0	0.53	ug/L		10/12/23 09:15	10/16/23 21:19	1
Barium	330		2.0	0.64	ug/L		10/12/23 09:15	10/16/23 21:19	1
Beryllium	<0.33		1.0	0.33	ug/L		10/12/23 09:15	10/16/23 21:19	1
Boron	160		100	76	ug/L		10/12/23 09:15	10/16/23 21:19	1
Cadmium	<0.10		0.20	0.10	ug/L		10/12/23 09:15	10/16/23 21:19	1
Calcium	180		0.50	0.19	mg/L		10/12/23 09:15	10/16/23 21:19	1
Chromium	<1.1		5.0	1.1	ug/L		10/12/23 09:15	10/16/23 21:19	1
Cobalt	0.37 J		0.50	0.17	ug/L		10/12/23 09:15	10/16/23 21:19	1
Iron	26000		100	36	ug/L		10/12/23 09:15	10/16/23 21:19	1
Lead	<0.24		0.50	0.24	ug/L		10/12/23 09:15	10/16/23 21:19	1
Lithium	4.6 J		10	2.5	ug/L		10/12/23 09:15	10/16/23 21:19	1
Molybdenum	<0.91		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 21:53	1
Selenium	<1.4		5.0	1.4	ug/L		10/12/23 09:15	10/16/23 21:19	1
Thallium	<0.26		1.0	0.26	ug/L		10/12/23 09:15	10/16/23 21:19	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	720		50	34	mg/L			10/11/23 14:04	1
pH (SM 4500 H+ B)	7.8 HF		1.0	1.0	SU			10/07/23 10:07	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.633		0.168	0.177	1.00	0.126	pCi/L	10/11/23 10:21	11/02/23 18:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	77.3		30 - 110					10/11/23 10:21	11/02/23 18:37	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	1.13		0.540	0.550	1.00	0.743	pCi/L	10/11/23 10:26	10/27/23 16:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	77.3		30 - 110					10/11/23 10:26	10/27/23 16:56	1
Y Carrier	85.2		30 - 110					10/11/23 10:26	10/27/23 16:56	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-314

Lab Sample ID: 310-266692-20

Date Collected: 10/05/23 09:45

Matrix: Water

Date Received: 10/06/23 16:15

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.77		0.566	0.578	5.00	0.743	pCi/L		11/07/23 16:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.02				ft			10/05/23 09:45	1
Oxidation Reduction Potential	-130.7				mV			10/05/23 09:45	1
Oxygen, Dissolved	0.35				mg/L			10/05/23 09:45	1
Field pH	6.69				SU			10/05/23 09:45	1
Field Conductivity	1313				umhos/cm			10/05/23 09:45	1
Field Temperature	13.2				Degrees C			10/05/23 09:45	1
Field Turbidity	18.75				NTU			10/05/23 09:45	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: Field Blank

Lab Sample ID: 310-266692-21

Date Collected: 10/05/23 10:30

Matrix: Water

Date Received: 10/06/23 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.45		1.0	0.45	mg/L			10/19/23 11:44	1
Fluoride	<0.075		0.20	0.075	mg/L			10/19/23 11:44	1
Sulfate	<0.42		1.0	0.42	mg/L			10/19/23 11:44	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		10/12/23 09:15	10/16/23 21:21	1
Arsenic	<0.53		2.0	0.53	ug/L		10/12/23 09:15	10/16/23 21:21	1
Barium	<0.64		2.0	0.64	ug/L		10/12/23 09:15	10/16/23 21:21	1
Beryllium	<0.33		1.0	0.33	ug/L		10/12/23 09:15	10/16/23 21:21	1
Boron	<76		100	76	ug/L		10/12/23 09:15	10/16/23 21:21	1
Cadmium	<0.10		0.20	0.10	ug/L		10/12/23 09:15	10/16/23 21:21	1
Calcium	<0.19		0.50	0.19	mg/L		10/12/23 09:15	10/16/23 21:21	1
Chromium	<1.1		5.0	1.1	ug/L		10/12/23 09:15	10/16/23 21:21	1
Cobalt	<0.17		0.50	0.17	ug/L		10/12/23 09:15	10/16/23 21:21	1
Iron	<36		100	36	ug/L		10/12/23 09:15	10/16/23 21:21	1
Lead	<0.24		0.50	0.24	ug/L		10/12/23 09:15	10/16/23 21:21	1
Lithium	<2.5		10	2.5	ug/L		10/12/23 09:15	10/16/23 21:21	1
Molybdenum	<0.91		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 21:57	1
Selenium	<1.4		5.0	1.4	ug/L		10/12/23 09:15	10/16/23 21:21	1
Thallium	<0.26		1.0	0.26	ug/L		10/12/23 09:15	10/16/23 21:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 14:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	<34		50	34	mg/L			10/11/23 14:04	1
pH (SM 4500 H+ B)	7.6	HF	1.0	1.0	SU			10/07/23 10:12	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0324	U	0.0664	0.0664	1.00	0.121	pCi/L	10/11/23 10:21	11/02/23 18:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	84.1		30 - 110					10/11/23 10:21	11/02/23 18:37	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.378	U	0.374	0.375	1.00	0.597	pCi/L	10/11/23 10:26	10/27/23 16:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	84.1		30 - 110					10/11/23 10:26	10/27/23 16:57	1
Y Carrier	84.9		30 - 110					10/11/23 10:26	10/27/23 16:57	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: Field Blank

Lab Sample ID: 310-266692-21

Date Collected: 10/05/23 10:30

Matrix: Water

Date Received: 10/06/23 16:15

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.410	U	0.380	0.381	5.00	0.597	pCi/L		11/07/23 16:38	1

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Definitions/Glossary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
♠	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-403115/3
Matrix: Water
Analysis Batch: 403115

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.45		1.0	0.45	mg/L			10/18/23 15:54	1
Fluoride	<0.075		0.20	0.075	mg/L			10/18/23 15:54	1
Sulfate	<0.42		1.0	0.42	mg/L			10/18/23 15:54	1

Lab Sample ID: LCS 310-403115/4
Matrix: Water
Analysis Batch: 403115

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	2.18		mg/L		109	90 - 110
Sulfate	10.0	10.8		mg/L		108	90 - 110

Lab Sample ID: MB 310-403211/3
Matrix: Water
Analysis Batch: 403211

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.45		1.0	0.45	mg/L			10/19/23 10:01	1
Fluoride	<0.075		0.20	0.075	mg/L			10/19/23 10:01	1
Sulfate	<0.42		1.0	0.42	mg/L			10/19/23 10:01	1

Lab Sample ID: LCS 310-403211/4
Matrix: Water
Analysis Batch: 403211

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	2.17		mg/L		109	90 - 110
Sulfate	10.0	10.8		mg/L		108	90 - 110

Lab Sample ID: 310-266692-14 MS
Matrix: Water
Analysis Batch: 403211

Client Sample ID: MW-310A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.39	J	5.00	5.54		mg/L		103	80 - 120
Sulfate	87		25.0	110		mg/L		92	80 - 120

Lab Sample ID: 310-266692-14 MSD
Matrix: Water
Analysis Batch: 403211

Client Sample ID: MW-310A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.39	J	5.00	5.56		mg/L		103	80 - 120	0	15
Sulfate	87		25.0	110		mg/L		92	80 - 120	0	15

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-402095/1-A
Matrix: Water
Analysis Batch: 402757

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 402095

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<1.0		2.0	1.0	ug/L		10/11/23 10:00	10/16/23 15:09	1
Arsenic	<0.53		2.0	0.53	ug/L		10/11/23 10:00	10/16/23 15:09	1
Barium	<0.64		2.0	0.64	ug/L		10/11/23 10:00	10/16/23 15:09	1
Beryllium	<0.33		1.0	0.33	ug/L		10/11/23 10:00	10/16/23 15:09	1
Boron	<76		100	76	ug/L		10/11/23 10:00	10/16/23 15:09	1
Cadmium	<0.10		0.20	0.10	ug/L		10/11/23 10:00	10/16/23 15:09	1
Calcium	<0.19		0.50	0.19	mg/L		10/11/23 10:00	10/16/23 15:09	1
Chromium	<1.1		5.0	1.1	ug/L		10/11/23 10:00	10/16/23 15:09	1
Cobalt	<0.17		0.50	0.17	ug/L		10/11/23 10:00	10/16/23 15:09	1
Iron	<36		100	36	ug/L		10/11/23 10:00	10/16/23 15:09	1
Lead	<0.24		0.50	0.24	ug/L		10/11/23 10:00	10/16/23 15:09	1
Lithium	<2.5		10	2.5	ug/L		10/11/23 10:00	10/16/23 15:09	1
Selenium	<1.4		5.0	1.4	ug/L		10/11/23 10:00	10/16/23 15:09	1
Thallium	<0.26		1.0	0.26	ug/L		10/11/23 10:00	10/16/23 15:09	1

Lab Sample ID: MB 310-402095/1-A
Matrix: Water
Analysis Batch: 402882

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 402095

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Molybdenum	<0.91		2.0	0.91	ug/L		10/11/23 10:00	10/17/23 19:29	1

Lab Sample ID: LCS 310-402095/2-A
Matrix: Water
Analysis Batch: 402757

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 402095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	200	197		ug/L		98	80 - 120
Barium	100	86.2		ug/L		86	80 - 120
Beryllium	100	89.8		ug/L		90	80 - 120
Boron	200	186		ug/L		93	80 - 120
Cadmium	100	91.6		ug/L		92	80 - 120
Calcium	2.00	1.75		mg/L		87	80 - 120
Chromium	100	96.4		ug/L		96	80 - 120
Cobalt	100	111		ug/L		111	80 - 120
Iron	200	226		ug/L		113	80 - 120
Lead	200	225		ug/L		112	80 - 120
Lithium	200	194		ug/L		97	80 - 120
Selenium	400	377		ug/L		94	80 - 120

Lab Sample ID: LCS 310-402095/2-A
Matrix: Water
Analysis Batch: 402882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 402095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-402095/2-A
Matrix: Water
Analysis Batch: 403271

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 402095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	200	160		ug/L		80	80 - 120

Lab Sample ID: MB 310-402250/1-A
Matrix: Water
Analysis Batch: 402757

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 402250

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		10/12/23 09:15	10/16/23 19:50	1
Arsenic	<0.53		2.0	0.53	ug/L		10/12/23 09:15	10/16/23 19:50	1
Barium	<0.64		2.0	0.64	ug/L		10/12/23 09:15	10/16/23 19:50	1
Magnesium	<150		500	150	ug/L		10/12/23 09:15	10/16/23 19:50	1
Beryllium	<0.33		1.0	0.33	ug/L		10/12/23 09:15	10/16/23 19:50	1
Manganese	<3.6		10	3.6	ug/L		10/12/23 09:15	10/16/23 19:50	1
Boron	<76		100	76	ug/L		10/12/23 09:15	10/16/23 19:50	1
Cadmium	<0.10		0.20	0.10	ug/L		10/12/23 09:15	10/16/23 19:50	1
Calcium	<0.19		0.50	0.19	mg/L		10/12/23 09:15	10/16/23 19:50	1
Chromium	<1.1		5.0	1.1	ug/L		10/12/23 09:15	10/16/23 19:50	1
Cobalt	<0.17		0.50	0.17	ug/L		10/12/23 09:15	10/16/23 19:50	1
Iron	<36		100	36	ug/L		10/12/23 09:15	10/16/23 19:50	1
Lead	<0.24		0.50	0.24	ug/L		10/12/23 09:15	10/16/23 19:50	1
Lithium	<2.5		10	2.5	ug/L		10/12/23 09:15	10/16/23 19:50	1
Selenium	<1.4		5.0	1.4	ug/L		10/12/23 09:15	10/16/23 19:50	1
Thallium	<0.26		1.0	0.26	ug/L		10/12/23 09:15	10/16/23 19:50	1

Lab Sample ID: MB 310-402250/1-A
Matrix: Water
Analysis Batch: 402882

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 402250

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.91		2.0	0.91	ug/L		10/12/23 09:15	10/17/23 20:12	1

Lab Sample ID: LCS 310-402250/2-A
Matrix: Water
Analysis Batch: 402757

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 402250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	200	229		ug/L		114	80 - 120
Arsenic	200	197		ug/L		98	80 - 120
Barium	100	89.6		ug/L		90	80 - 120
Magnesium	2000	1950		ug/L		98	80 - 120
Beryllium	100	88.2		ug/L		88	80 - 120
Manganese	100	91.5		ug/L		92	80 - 120
Boron	200	192		ug/L		96	80 - 120
Cadmium	100	94.1		ug/L		94	80 - 120
Calcium	2.00	1.74		mg/L		87	80 - 120
Chromium	100	93.9		ug/L		94	80 - 120
Cobalt	100	110		ug/L		110	80 - 120
Iron	200	210		ug/L		105	80 - 120
Lead	200	229		ug/L		114	80 - 120

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-402250/2-A
Matrix: Water
Analysis Batch: 402757

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 402250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	200	197		ug/L		99	80 - 120
Selenium	400	386		ug/L		97	80 - 120
Thallium	200	163		ug/L		81	80 - 120

Lab Sample ID: LCS 310-402250/2-A
Matrix: Water
Analysis Batch: 402882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 402250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	200	191		ug/L		96	80 - 120

Lab Sample ID: 310-266692-3 MS
Matrix: Water
Analysis Batch: 402757

Client Sample ID: MW-302A
Prep Type: Total/NA
Prep Batch: 402250

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<1.0	F1	200	257	F1	ug/L		128	75 - 125
Arsenic	0.90	J	200	214		ug/L		107	75 - 125
Barium	110		100	205		ug/L		94	75 - 125
Magnesium	19000		2000	20100	4	ug/L		67	75 - 125
Beryllium	<0.33		100	98.6		ug/L		99	75 - 125
Manganese	510		100	599	4	ug/L		94	75 - 125
Boron	100		200	315		ug/L		106	75 - 125
Cadmium	0.11	J	100	104		ug/L		104	75 - 125
Calcium	50000		2.00	51.4	4	mg/L		-2475 242	75 - 125
Chromium	<1.1		100	104		ug/L		104	75 - 125
Cobalt	<0.17		100	113		ug/L		113	75 - 125
Iron	3900		200	4090	4	ug/L		75	75 - 125
Lead	0.26	J	200	237		ug/L		119	75 - 125
Lithium	4.6	J	200	212		ug/L		104	75 - 125
Selenium	<1.4		400	427		ug/L		107	75 - 125
Thallium	2.7	F1	200	153		ug/L		75	75 - 125

Lab Sample ID: 310-266692-3 MS
Matrix: Water
Analysis Batch: 402882

Client Sample ID: MW-302A
Prep Type: Total/NA
Prep Batch: 402250

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	8.5		200	195		ug/L		93	75 - 125

Lab Sample ID: 310-266692-3 MSD
Matrix: Water
Analysis Batch: 402757

Client Sample ID: MW-302A
Prep Type: Total/NA
Prep Batch: 402250

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	<1.0	F1	200	234		ug/L		117	75 - 125	9	20
Arsenic	0.90	J	200	196		ug/L		97	75 - 125	9	20
Barium	110		100	196		ug/L		86	75 - 125	4	20
Magnesium	19000		2000	20000	4	ug/L		60	75 - 125	1	20

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-266692-3 MSD
Matrix: Water
Analysis Batch: 402757

Client Sample ID: MW-302A
Prep Type: Total/NA
Prep Batch: 402250

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier		Result	Qualifier				Limits		Limit
Beryllium	<0.33		100	90.3		ug/L		90	75 - 125	9	20
Manganese	510		100	578	4	ug/L		72	75 - 125	4	20
Boron	100		200	303		ug/L		100	75 - 125	4	20
Cadmium	0.11	J	100	93.9		ug/L		94	75 - 125	10	20
Calcium	50000		2.00	50.3	4	mg/L		-2475	75 - 125	2	20
Chromium	<1.1		100	88.4		ug/L		88	75 - 125	16	20
Cobalt	<0.17		100	101		ug/L		101	75 - 125	11	20
Iron	3900		200	4010	4	ug/L		37	75 - 125	2	20
Lead	0.26	J	200	216		ug/L		108	75 - 125	9	20
Lithium	4.6	J	200	194		ug/L		95	75 - 125	9	20
Selenium	<1.4		400	390		ug/L		97	75 - 125	9	20
Thallium	2.7	F1	200	142	F1	ug/L		70	75 - 125	8	20

Lab Sample ID: 310-266692-3 MSD
Matrix: Water
Analysis Batch: 402882

Client Sample ID: MW-302A
Prep Type: Total/NA
Prep Batch: 402250

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier		Result	Qualifier				Limits		Limit
Molybdenum	8.5		200	178		ug/L		85	75 - 125	9	20

Lab Sample ID: 310-266692-13 DU
Matrix: Water
Analysis Batch: 402757

Client Sample ID: MW-310
Prep Type: Total/NA
Prep Batch: 402250

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier		Result				Qualifier
Antimony	<1.0		<1.0		ug/L		NC	20
Arsenic	45		47.8		ug/L		6	20
Barium	360		372		ug/L		4	20
Magnesium	23000		23900		ug/L		5	20
Beryllium	<0.33		<0.33		ug/L		NC	20
Manganese	3400		3570		ug/L		6	20
Boron	130		139		ug/L		5	20
Cadmium	<0.10		<0.10		ug/L		NC	20
Calcium	100		109		mg/L		4	20
Chromium	<1.1		<1.1		ug/L		NC	20
Cobalt	2.4		2.57		ug/L		6	20
Iron	19000		19900		ug/L		6	20
Lead	<0.24		<0.24		ug/L		NC	20
Lithium	<2.5		<2.5		ug/L		NC	20
Selenium	<1.4		<1.4		ug/L		NC	20
Thallium	<0.26		<0.26		ug/L		NC	20

Lab Sample ID: 310-266692-13 DU
Matrix: Water
Analysis Batch: 402882

Client Sample ID: MW-310
Prep Type: Total/NA
Prep Batch: 402250

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier		Result				Qualifier
Molybdenum	3.3		3.27		ug/L		0.2	20

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-407106/1-A
Matrix: Water
Analysis Batch: 407345

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 407106

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		11/28/23 08:45	11/29/23 10:27	1
Arsenic	<0.53		2.0	0.53	ug/L		11/28/23 08:45	11/29/23 10:27	1
Barium	<0.64		2.0	0.64	ug/L		11/28/23 08:45	11/29/23 10:27	1
Beryllium	<0.33		1.0	0.33	ug/L		11/28/23 08:45	11/29/23 10:27	1
Boron	<76		100	76	ug/L		11/28/23 08:45	11/29/23 10:27	1
Cadmium	<0.10		0.20	0.10	ug/L		11/28/23 08:45	11/29/23 10:27	1
Calcium	<0.19		0.50	0.19	mg/L		11/28/23 08:45	11/29/23 10:27	1
Chromium	<1.1		5.0	1.1	ug/L		11/28/23 08:45	11/29/23 10:27	1
Cobalt	<0.17		0.50	0.17	ug/L		11/28/23 08:45	11/29/23 10:27	1
Iron	<36		100	36	ug/L		11/28/23 08:45	11/29/23 10:27	1
Lead	<0.24		0.50	0.24	ug/L		11/28/23 08:45	11/29/23 10:27	1
Lithium	<2.5		10	2.5	ug/L		11/28/23 08:45	11/29/23 10:27	1
Molybdenum	<0.91		2.0	0.91	ug/L		11/28/23 08:45	11/29/23 10:27	1
Selenium	<1.4		5.0	1.4	ug/L		11/28/23 08:45	11/29/23 10:27	1
Thallium	<0.26		1.0	0.26	ug/L		11/28/23 08:45	11/29/23 10:27	1

Lab Sample ID: LCS 310-407106/2-A
Matrix: Water
Analysis Batch: 407345

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 407106

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	200	207		ug/L		103	80 - 120
Arsenic	200	206		ug/L		103	80 - 120
Barium	100	93.9		ug/L		94	80 - 120
Beryllium	100	97.3		ug/L		97	80 - 120
Boron	200	183		ug/L		91	80 - 120
Cadmium	100	93.9		ug/L		94	80 - 120
Calcium	2.00	1.97		mg/L		98	80 - 120
Chromium	100	93.1		ug/L		93	80 - 120
Cobalt	100	96.0		ug/L		96	80 - 120
Iron	200	191		ug/L		96	80 - 120
Lead	200	197		ug/L		99	80 - 120
Lithium	200	206		ug/L		103	80 - 120
Molybdenum	200	192		ug/L		96	80 - 120
Selenium	400	354		ug/L		89	80 - 120
Thallium	200	184		ug/L		92	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-402673/1-A
Matrix: Water
Analysis Batch: 402839

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 402673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		10/16/23 15:02	10/17/23 13:59	1

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 310-402673/2-A
 Matrix: Water
 Analysis Batch: 402839

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 402673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.67	1.59		ug/L		96	80 - 120

Lab Sample ID: 310-266692-1 MS
 Matrix: Water
 Analysis Batch: 402839

Client Sample ID: MW-301
 Prep Type: Total/NA
 Prep Batch: 402673

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.14		1.67	1.65		ug/L		99	80 - 120

Lab Sample ID: 310-266692-1 MSD
 Matrix: Water
 Analysis Batch: 402839

Client Sample ID: MW-301
 Prep Type: Total/NA
 Prep Batch: 402673

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.14		1.67	1.65		ug/L		99	80 - 120	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: LCS 310-402340/2
 Matrix: Water
 Analysis Batch: 402340

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3	1000	975		mg/L		98	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-401961/1
 Matrix: Water
 Analysis Batch: 401961

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<34		50	34	mg/L			10/09/23 15:10	1

Lab Sample ID: LCS 310-401961/2
 Matrix: Water
 Analysis Batch: 401961

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1000		mg/L		100	90 - 110

Lab Sample ID: MB 310-402079/1
 Matrix: Water
 Analysis Batch: 402079

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<34		50	34	mg/L			10/10/23 13:38	1

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 310-402079/2
Matrix: Water
Analysis Batch: 402079

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1010		mg/L		101	90 - 110

Lab Sample ID: MB 310-402219/1
Matrix: Water
Analysis Batch: 402219

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<34		50	34	mg/L			10/11/23 14:04	1

Lab Sample ID: LCS 310-402219/2
Matrix: Water
Analysis Batch: 402219

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	998		mg/L		100	90 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-401848/1
Matrix: Water
Analysis Batch: 401848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	98 - 102

Lab Sample ID: LCS 310-401848/29
Matrix: Water
Analysis Batch: 401848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	98 - 102

Lab Sample ID: 310-266692-4 DU
Matrix: Water
Analysis Batch: 401848

Client Sample ID: MW-303
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.5	HF	7.7		SU		3	20

Lab Sample ID: 310-266692-15 DU
Matrix: Water
Analysis Batch: 401848

Client Sample ID: MW-311
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.7	HF	7.8		SU		2	20

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: LCS 310-401993/1
Matrix: Water
Analysis Batch: 401993

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.1		SU		101	98 - 102

Lab Sample ID: 310-266692-5 DU
Matrix: Water
Analysis Batch: 401993

Client Sample ID: MW-304
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	6.6	HF	6.6		SU		0.3	20

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-631579/1-A
Matrix: Water
Analysis Batch: 634835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 631579

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	-0.01811	U	0.0485	0.0485	1.00	0.116	pCi/L	10/11/23 10:21	11/02/23 18:27	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	88.5		30 - 110					10/11/23 10:21	11/02/23 18:27	1

Lab Sample ID: LCS 160-631579/2-A
Matrix: Water
Analysis Batch: 634835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 631579

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium 226	11.3	11.27		1.19	1.00	0.115	pCi/L	99	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Barium	86.6		30 - 110						

Lab Sample ID: 310-266692-21 DU
Matrix: Water
Analysis Batch: 634939

Client Sample ID: Field Blank
Prep Type: Total/NA
Prep Batch: 631579

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium 226	0.0324	U	-0.03837	U	0.0830	1.00	0.181	pCi/L	0.47	1
Carrier	DU %Yield	DU Qualifier	Limits							
Barium	82.6		30 - 110							

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-631580/1-A
Matrix: Water
Analysis Batch: 633885

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 631580

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium 228	0.1623	U	0.348	0.348	1.00	0.608	pCi/L	10/11/23 10:26	10/27/23 16:49	1
Carrier	MB	MB	Limits				Prepared		Analyzed	
	%Yield	Qualifier								
Barium	88.5		30 - 110				10/11/23 10:26		10/27/23 16:49	
Y Carrier	83.4		30 - 110				10/11/23 10:26		10/27/23 16:49	

Lab Sample ID: LCS 160-631580/2-A
Matrix: Water
Analysis Batch: 633885

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 631580

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits	
				Uncert. (2σ+/-)						
Radium 228	7.77	8.291		1.24	1.00	0.607	pCi/L	107	75 - 125	
Carrier	LCS	LCS	Limits							
	%Yield	Qualifier								
Barium	86.6		30 - 110							
Y Carrier	84.9		30 - 110							

Lab Sample ID: 310-266692-21 DU
Matrix: Water
Analysis Batch: 633752

Client Sample ID: Field Blank
Prep Type: Total/NA
Prep Batch: 631580

Analyte	Sample	Sample	DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium 228	0.378	U	0.5436	U	0.437	1.00	0.674	pCi/L	0.20	1
Carrier	DU	DU	Limits							
	%Yield	Qualifier								
Barium	82.6		30 - 110							
Y Carrier	86.0		30 - 110							

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

HPLC/IC

Analysis Batch: 403115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-1	MW-301	Total/NA	Water	9056A	
310-266692-1	MW-301	Total/NA	Water	9056A	
310-266692-2	MW-302	Total/NA	Water	9056A	
310-266692-4	MW-303	Total/NA	Water	9056A	
310-266692-5	MW-304	Total/NA	Water	9056A	
310-266692-6	MW-305	Total/NA	Water	9056A	
310-266692-7	MW-306	Total/NA	Water	9056A	
310-266692-8	MW-307	Total/NA	Water	9056A	
310-266692-11	MW-308	Total/NA	Water	9056A	
310-266692-11	MW-308	Total/NA	Water	9056A	
310-266692-12	MW-309	Total/NA	Water	9056A	
310-266692-13	MW-310	Total/NA	Water	9056A	
MB 310-403115/3	Method Blank	Total/NA	Water	9056A	
LCS 310-403115/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 403211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-14	MW-310A	Total/NA	Water	9056A	
310-266692-15	MW-311	Total/NA	Water	9056A	
310-266692-20	MW-314	Total/NA	Water	9056A	
310-266692-21	Field Blank	Total/NA	Water	9056A	
MB 310-403211/3	Method Blank	Total/NA	Water	9056A	
LCS 310-403211/4	Lab Control Sample	Total/NA	Water	9056A	
310-266692-14 MS	MW-310A	Total/NA	Water	9056A	
310-266692-14 MSD	MW-310A	Total/NA	Water	9056A	

Metals

Prep Batch: 402095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-1	MW-301	Total/NA	Water	3005A	
310-266692-2	MW-302	Total/NA	Water	3005A	
MB 310-402095/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-402095/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 402250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-3	MW-302A	Total/NA	Water	3005A	
310-266692-4	MW-303	Total/NA	Water	3005A	
310-266692-5	MW-304	Total/NA	Water	3005A	
310-266692-6	MW-305	Total/NA	Water	3005A	
310-266692-7	MW-306	Total/NA	Water	3005A	
310-266692-8	MW-307	Total/NA	Water	3005A	
310-266692-9	MW-307A	Total/NA	Water	3005A	
310-266692-10	MW-307B	Total/NA	Water	3005A	
310-266692-11	MW-308	Total/NA	Water	3005A	
310-266692-12	MW-309	Total/NA	Water	3005A	
310-266692-13	MW-310	Total/NA	Water	3005A	
310-266692-14	MW-310A	Total/NA	Water	3005A	
310-266692-15	MW-311	Total/NA	Water	3005A	
310-266692-16	MW-312	Total/NA	Water	3005A	

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QC Association Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Metals (Continued)

Prep Batch: 402250 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-17	MW-313	Total/NA	Water	3005A	
310-266692-18	MW-313A	Total/NA	Water	3005A	
310-266692-19	MW-313B	Total/NA	Water	3005A	
310-266692-20	MW-314	Total/NA	Water	3005A	
310-266692-21	Field Blank	Total/NA	Water	3005A	
MB 310-402250/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-402250/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-266692-3 MS	MW-302A	Total/NA	Water	3005A	
310-266692-3 MSD	MW-302A	Total/NA	Water	3005A	
310-266692-13 DU	MW-310	Total/NA	Water	3005A	

Prep Batch: 402673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-1	MW-301	Total/NA	Water	7470A	
310-266692-2	MW-302	Total/NA	Water	7470A	
310-266692-4	MW-303	Total/NA	Water	7470A	
310-266692-5	MW-304	Total/NA	Water	7470A	
310-266692-6	MW-305	Total/NA	Water	7470A	
310-266692-7	MW-306	Total/NA	Water	7470A	
310-266692-8	MW-307	Total/NA	Water	7470A	
310-266692-11	MW-308	Total/NA	Water	7470A	
310-266692-12	MW-309	Total/NA	Water	7470A	
310-266692-13	MW-310	Total/NA	Water	7470A	
310-266692-14	MW-310A	Total/NA	Water	7470A	
310-266692-15	MW-311	Total/NA	Water	7470A	
310-266692-20	MW-314	Total/NA	Water	7470A	
310-266692-21	Field Blank	Total/NA	Water	7470A	
MB 310-402673/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-402673/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-266692-1 MS	MW-301	Total/NA	Water	7470A	
310-266692-1 MSD	MW-301	Total/NA	Water	7470A	

Analysis Batch: 402757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-1	MW-301	Total/NA	Water	6020B	402095
310-266692-2	MW-302	Total/NA	Water	6020B	402095
310-266692-3	MW-302A	Total/NA	Water	6020B	402250
310-266692-4	MW-303	Total/NA	Water	6020B	402250
310-266692-5	MW-304	Total/NA	Water	6020B	402250
310-266692-6	MW-305	Total/NA	Water	6020B	402250
310-266692-7	MW-306	Total/NA	Water	6020B	402250
310-266692-8	MW-307	Total/NA	Water	6020B	402250
310-266692-9	MW-307A	Total/NA	Water	6020B	402250
310-266692-10	MW-307B	Total/NA	Water	6020B	402250
310-266692-11	MW-308	Total/NA	Water	6020B	402250
310-266692-12	MW-309	Total/NA	Water	6020B	402250
310-266692-13	MW-310	Total/NA	Water	6020B	402250
310-266692-14	MW-310A	Total/NA	Water	6020B	402250
310-266692-15	MW-311	Total/NA	Water	6020B	402250
310-266692-16	MW-312	Total/NA	Water	6020B	402250
310-266692-17	MW-313	Total/NA	Water	6020B	402250

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QC Association Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Metals (Continued)

Analysis Batch: 402757 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-18	MW-313A	Total/NA	Water	6020B	402250
310-266692-19	MW-313B	Total/NA	Water	6020B	402250
310-266692-20	MW-314	Total/NA	Water	6020B	402250
310-266692-21	Field Blank	Total/NA	Water	6020B	402250
MB 310-402095/1-A	Method Blank	Total/NA	Water	6020B	402095
MB 310-402250/1-A	Method Blank	Total/NA	Water	6020B	402250
LCS 310-402095/2-A	Lab Control Sample	Total/NA	Water	6020B	402095
LCS 310-402250/2-A	Lab Control Sample	Total/NA	Water	6020B	402250
310-266692-3 MS	MW-302A	Total/NA	Water	6020B	402250
310-266692-3 MSD	MW-302A	Total/NA	Water	6020B	402250
310-266692-13 DU	MW-310	Total/NA	Water	6020B	402250

Analysis Batch: 402839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-1	MW-301	Total/NA	Water	7470A	402673
310-266692-2	MW-302	Total/NA	Water	7470A	402673
310-266692-4	MW-303	Total/NA	Water	7470A	402673
310-266692-5	MW-304	Total/NA	Water	7470A	402673
310-266692-6	MW-305	Total/NA	Water	7470A	402673
310-266692-7	MW-306	Total/NA	Water	7470A	402673
310-266692-8	MW-307	Total/NA	Water	7470A	402673
310-266692-11	MW-308	Total/NA	Water	7470A	402673
310-266692-12	MW-309	Total/NA	Water	7470A	402673
310-266692-13	MW-310	Total/NA	Water	7470A	402673
310-266692-14	MW-310A	Total/NA	Water	7470A	402673
310-266692-15	MW-311	Total/NA	Water	7470A	402673
310-266692-20	MW-314	Total/NA	Water	7470A	402673
310-266692-21	Field Blank	Total/NA	Water	7470A	402673
MB 310-402673/1-A	Method Blank	Total/NA	Water	7470A	402673
LCS 310-402673/2-A	Lab Control Sample	Total/NA	Water	7470A	402673
310-266692-1 MS	MW-301	Total/NA	Water	7470A	402673
310-266692-1 MSD	MW-301	Total/NA	Water	7470A	402673

Analysis Batch: 402882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-1	MW-301	Total/NA	Water	6020B	402095
310-266692-2	MW-302	Total/NA	Water	6020B	402095
310-266692-3	MW-302A	Total/NA	Water	6020B	402250
310-266692-4	MW-303	Total/NA	Water	6020B	402250
310-266692-5	MW-304	Total/NA	Water	6020B	402250
310-266692-6	MW-305	Total/NA	Water	6020B	402250
310-266692-7	MW-306	Total/NA	Water	6020B	402250
310-266692-8	MW-307	Total/NA	Water	6020B	402250
310-266692-9	MW-307A	Total/NA	Water	6020B	402250
310-266692-10	MW-307B	Total/NA	Water	6020B	402250
310-266692-11	MW-308	Total/NA	Water	6020B	402250
310-266692-12	MW-309	Total/NA	Water	6020B	402250
310-266692-13	MW-310	Total/NA	Water	6020B	402250
310-266692-14	MW-310A	Total/NA	Water	6020B	402250
310-266692-15	MW-311	Total/NA	Water	6020B	402250
310-266692-16	MW-312	Total/NA	Water	6020B	402250

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Metals (Continued)

Analysis Batch: 402882 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-17	MW-313	Total/NA	Water	6020B	402250
310-266692-18	MW-313A	Total/NA	Water	6020B	402250
310-266692-19	MW-313B	Total/NA	Water	6020B	402250
310-266692-20	MW-314	Total/NA	Water	6020B	402250
310-266692-21	Field Blank	Total/NA	Water	6020B	402250
MB 310-402095/1-A	Method Blank	Total/NA	Water	6020B	402095
MB 310-402250/1-A	Method Blank	Total/NA	Water	6020B	402250
LCS 310-402095/2-A	Lab Control Sample	Total/NA	Water	6020B	402095
LCS 310-402250/2-A	Lab Control Sample	Total/NA	Water	6020B	402250
310-266692-3 MS	MW-302A	Total/NA	Water	6020B	402250
310-266692-3 MSD	MW-302A	Total/NA	Water	6020B	402250
310-266692-13 DU	MW-310	Total/NA	Water	6020B	402250

Analysis Batch: 403271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-402095/2-A	Lab Control Sample	Total/NA	Water	6020B	402095

Prep Batch: 407106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-4	MW-303	Total/NA	Water	3005A	
MB 310-407106/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-407106/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 407345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-4	MW-303	Total/NA	Water	6020B	407106
MB 310-407106/1-A	Method Blank	Total/NA	Water	6020B	407106
LCS 310-407106/2-A	Lab Control Sample	Total/NA	Water	6020B	407106

General Chemistry

Analysis Batch: 401848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-1	MW-301	Total/NA	Water	SM 4500 H+ B	
310-266692-2	MW-302	Total/NA	Water	SM 4500 H+ B	
310-266692-4	MW-303	Total/NA	Water	SM 4500 H+ B	
310-266692-6	MW-305	Total/NA	Water	SM 4500 H+ B	
310-266692-7	MW-306	Total/NA	Water	SM 4500 H+ B	
310-266692-8	MW-307	Total/NA	Water	SM 4500 H+ B	
310-266692-11	MW-308	Total/NA	Water	SM 4500 H+ B	
310-266692-12	MW-309	Total/NA	Water	SM 4500 H+ B	
310-266692-13	MW-310	Total/NA	Water	SM 4500 H+ B	
310-266692-14	MW-310A	Total/NA	Water	SM 4500 H+ B	
310-266692-15	MW-311	Total/NA	Water	SM 4500 H+ B	
310-266692-20	MW-314	Total/NA	Water	SM 4500 H+ B	
310-266692-21	Field Blank	Total/NA	Water	SM 4500 H+ B	
LCS 310-401848/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCS 310-401848/29	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-266692-4 DU	MW-303	Total/NA	Water	SM 4500 H+ B	
310-266692-15 DU	MW-311	Total/NA	Water	SM 4500 H+ B	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

General Chemistry

Analysis Batch: 401961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-1	MW-301	Total/NA	Water	SM 2540C	
310-266692-2	MW-302	Total/NA	Water	SM 2540C	
310-266692-4	MW-303	Total/NA	Water	SM 2540C	
310-266692-5	MW-304	Total/NA	Water	SM 2540C	
310-266692-6	MW-305	Total/NA	Water	SM 2540C	
310-266692-11	MW-308	Total/NA	Water	SM 2540C	
MB 310-401961/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-401961/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 401993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-5	MW-304	Total/NA	Water	SM 4500 H+ B	
LCS 310-401993/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-266692-5 DU	MW-304	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 402079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-7	MW-306	Total/NA	Water	SM 2540C	
310-266692-8	MW-307	Total/NA	Water	SM 2540C	
310-266692-12	MW-309	Total/NA	Water	SM 2540C	
MB 310-402079/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-402079/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 402219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-13	MW-310	Total/NA	Water	SM 2540C	
310-266692-14	MW-310A	Total/NA	Water	SM 2540C	
310-266692-15	MW-311	Total/NA	Water	SM 2540C	
310-266692-20	MW-314	Total/NA	Water	SM 2540C	
310-266692-21	Field Blank	Total/NA	Water	SM 2540C	
MB 310-402219/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-402219/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 402340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-17	MW-313	Total/NA	Water	SM 2320B	
LCS 310-402340/2	Lab Control Sample	Total/NA	Water	SM 2320B	

Rad

Prep Batch: 631579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-1	MW-301	Total/NA	Water	PrecSep-21	
310-266692-2	MW-302	Total/NA	Water	PrecSep-21	
310-266692-4	MW-303	Total/NA	Water	PrecSep-21	
310-266692-5	MW-304	Total/NA	Water	PrecSep-21	
310-266692-6	MW-305	Total/NA	Water	PrecSep-21	
310-266692-7	MW-306	Total/NA	Water	PrecSep-21	
310-266692-8	MW-307	Total/NA	Water	PrecSep-21	
310-266692-11	MW-308	Total/NA	Water	PrecSep-21	
310-266692-12	MW-309	Total/NA	Water	PrecSep-21	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Rad (Continued)

Prep Batch: 631579 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-13	MW-310	Total/NA	Water	PrecSep-21	
310-266692-14	MW-310A	Total/NA	Water	PrecSep-21	
310-266692-15	MW-311	Total/NA	Water	PrecSep-21	
310-266692-20	MW-314	Total/NA	Water	PrecSep-21	
310-266692-21	Field Blank	Total/NA	Water	PrecSep-21	
MB 160-631579/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-631579/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
310-266692-21 DU	Field Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 631580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-1	MW-301	Total/NA	Water	PrecSep_0	
310-266692-2	MW-302	Total/NA	Water	PrecSep_0	
310-266692-4	MW-303	Total/NA	Water	PrecSep_0	
310-266692-5	MW-304	Total/NA	Water	PrecSep_0	
310-266692-6	MW-305	Total/NA	Water	PrecSep_0	
310-266692-7	MW-306	Total/NA	Water	PrecSep_0	
310-266692-8	MW-307	Total/NA	Water	PrecSep_0	
310-266692-11	MW-308	Total/NA	Water	PrecSep_0	
310-266692-12	MW-309	Total/NA	Water	PrecSep_0	
310-266692-13	MW-310	Total/NA	Water	PrecSep_0	
310-266692-14	MW-310A	Total/NA	Water	PrecSep_0	
310-266692-15	MW-311	Total/NA	Water	PrecSep_0	
310-266692-20	MW-314	Total/NA	Water	PrecSep_0	
310-266692-21	Field Blank	Total/NA	Water	PrecSep_0	
MB 160-631580/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-631580/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
310-266692-21 DU	Field Blank	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 403349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-1	MW-301	Total/NA	Water	Field Sampling	
310-266692-2	MW-302	Total/NA	Water	Field Sampling	
310-266692-3	MW-302A	Total/NA	Water	Field Sampling	
310-266692-4	MW-303	Total/NA	Water	Field Sampling	
310-266692-5	MW-304	Total/NA	Water	Field Sampling	
310-266692-6	MW-305	Total/NA	Water	Field Sampling	
310-266692-7	MW-306	Total/NA	Water	Field Sampling	
310-266692-8	MW-307	Total/NA	Water	Field Sampling	
310-266692-9	MW-307A	Total/NA	Water	Field Sampling	
310-266692-10	MW-307B	Total/NA	Water	Field Sampling	
310-266692-11	MW-308	Total/NA	Water	Field Sampling	
310-266692-12	MW-309	Total/NA	Water	Field Sampling	
310-266692-13	MW-310	Total/NA	Water	Field Sampling	
310-266692-14	MW-310A	Total/NA	Water	Field Sampling	
310-266692-15	MW-311	Total/NA	Water	Field Sampling	
310-266692-16	MW-312	Total/NA	Water	Field Sampling	
310-266692-17	MW-313	Total/NA	Water	Field Sampling	
310-266692-18	MW-313A	Total/NA	Water	Field Sampling	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Field Service / Mobile Lab (Continued)

Analysis Batch: 403349 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-266692-19	MW-313B	Total/NA	Water	Field Sampling	
310-266692-20	MW-314	Total/NA	Water	Field Sampling	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-301
Date Collected: 10/03/23 15:25
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	403115	QTZ5	EET CF	10/18/23 19:48
Total/NA	Analysis	9056A		100	403115	QTZ5	EET CF	10/19/23 09:32
Total/NA	Prep	3005A			402095	KCK5	EET CF	10/11/23 10:00
Total/NA	Analysis	6020B		4	402882	A6US	EET CF	10/17/23 19:52
Total/NA	Prep	3005A			402095	KCK5	EET CF	10/11/23 10:00
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 16:42
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:03
Total/NA	Analysis	SM 2540C		1	401961	D7CP	EET CF	10/09/23 15:10
Total/NA	Analysis	SM 4500 H+ B		1	401848	WZC8	EET CF	10/07/23 08:36
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634835	CMM	EET SL	11/02/23 18:27
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633885	FLC	EET SL	10/27/23 16:49
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38
Total/NA	Analysis	Field Sampling		1	403349	BJ0R	EET CF	10/03/23 15:25

Client Sample ID: MW-302
Date Collected: 10/03/23 14:25
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	403115	QTZ5	EET CF	10/18/23 20:03
Total/NA	Prep	3005A			402095	KCK5	EET CF	10/11/23 10:00
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 19:55
Total/NA	Prep	3005A			402095	KCK5	EET CF	10/11/23 10:00
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 16:58
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:10
Total/NA	Analysis	SM 2540C		1	401961	D7CP	EET CF	10/09/23 15:10
Total/NA	Analysis	SM 4500 H+ B		1	401848	WZC8	EET CF	10/07/23 08:40
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634835	CMM	EET SL	11/02/23 18:28
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633885	FLC	EET SL	10/27/23 16:49
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38
Total/NA	Analysis	Field Sampling		1	403349	BJ0R	EET CF	10/03/23 14:25

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-302A
Date Collected: 10/03/23 13:40
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 20:19
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 19:54
Total/NA	Analysis	Field Sampling		1	403349	BJOR	EET CF	10/03/23 13:40

Client Sample ID: MW-303
Date Collected: 10/03/23 12:45
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	403115	QTZ5	EET CF	10/18/23 20:17
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 20:29
Total/NA	Prep	3005A			407106	KCK5	EET CF	11/28/23 08:45
Total/NA	Analysis	6020B		1	407345	A6US	EET CF	11/29/23 11:15
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 20:17
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:12
Total/NA	Analysis	SM 2540C		1	401961	D7CP	EET CF	10/09/23 15:10
Total/NA	Analysis	SM 4500 H+ B		1	401848	WZC8	EET CF	10/07/23 09:04
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634835	CMM	EET SL	11/02/23 18:28
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633885	FLC	EET SL	10/27/23 16:49
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38
Total/NA	Analysis	Field Sampling		1	403349	BJOR	EET CF	10/03/23 12:45

Client Sample ID: MW-304
Date Collected: 10/03/23 11:40
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	403115	QTZ5	EET CF	10/18/23 20:32
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		10	402882	A6US	EET CF	10/17/23 20:32
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		4	402757	A6US	EET CF	10/16/23 20:19
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:14
Total/NA	Analysis	SM 2540C		1	401961	D7CP	EET CF	10/09/23 15:10
Total/NA	Analysis	SM 4500 H+ B		1	401993	W9YR	EET CF	10/10/23 07:07

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-304
Date Collected: 10/03/23 11:40
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634835	CMM	EET SL	11/02/23 18:28
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633752	FLC	EET SL	10/27/23 16:53
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38
Total/NA	Analysis	Field Sampling		1	403349	BJOR	EET CF	10/03/23 11:40

Client Sample ID: MW-305
Date Collected: 10/03/23 10:05
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	403115	QTZ5	EET CF	10/18/23 20:47
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 20:35
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 20:22
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:20
Total/NA	Analysis	SM 2540C		1	401961	D7CP	EET CF	10/09/23 15:10
Total/NA	Analysis	SM 4500 H+ B		1	401848	WZC8	EET CF	10/07/23 09:13
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634835	CMM	EET SL	11/02/23 18:29
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633752	FLC	EET SL	10/27/23 16:53
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38
Total/NA	Analysis	Field Sampling		1	403349	BJOR	EET CF	10/03/23 10:05

Client Sample ID: MW-306
Date Collected: 10/04/23 15:30
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	403115	QTZ5	EET CF	10/18/23 21:01
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 20:39
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 20:25
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:23
Total/NA	Analysis	SM 2540C		1	402079	ENB7	EET CF	10/10/23 13:38
Total/NA	Analysis	SM 4500 H+ B		1	401848	WZC8	EET CF	10/07/23 09:22
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634835	CMM	EET SL	11/02/23 18:30

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-306
Date Collected: 10/04/23 15:30
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633752	FLC	EET SL	10/27/23 16:53
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38
Total/NA	Analysis	Field Sampling		1	403349	BJOR	EET CF	10/04/23 15:30

Client Sample ID: MW-307
Date Collected: 10/04/23 10:35
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	403115	QTZ5	EET CF	10/18/23 21:45
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 20:42
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 20:27
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:25
Total/NA	Analysis	SM 2540C		1	402079	ENB7	EET CF	10/10/23 13:38
Total/NA	Analysis	SM 4500 H+ B		1	401848	WZC8	EET CF	10/07/23 09:26
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634835	CMM	EET SL	11/02/23 18:30
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633752	FLC	EET SL	10/27/23 16:53
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38
Total/NA	Analysis	Field Sampling		1	403349	BJOR	EET CF	10/04/23 10:35

Client Sample ID: MW-307A
Date Collected: 10/04/23 09:50
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 20:59
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 20:30
Total/NA	Analysis	Field Sampling		1	403349	BJOR	EET CF	10/04/23 09:50

Client Sample ID: MW-307B
Date Collected: 10/04/23 11:30
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 21:02

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Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-307B
Date Collected: 10/04/23 11:30
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 20:32
Total/NA	Analysis	Field Sampling		1	403349	BJ0R	EET CF	10/04/23 11:30

Client Sample ID: MW-308
Date Collected: 10/03/23 11:00
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	403115	QTZ5	EET CF	10/18/23 22:00
Total/NA	Analysis	9056A		100	403115	QTZ5	EET CF	10/19/23 09:46
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		10	402882	A6US	EET CF	10/17/23 21:06
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 20:35
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:27
Total/NA	Analysis	SM 2540C		1	401961	D7CP	EET CF	10/09/23 15:10
Total/NA	Analysis	SM 4500 H+ B		1	401848	WZC8	EET CF	10/07/23 09:30
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634835	CMM	EET SL	11/02/23 18:30
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633752	FLC	EET SL	10/27/23 16:53
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38
Total/NA	Analysis	Field Sampling		1	403349	BJ0R	EET CF	10/03/23 11:00

Client Sample ID: MW-309
Date Collected: 10/04/23 16:30
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	403115	QTZ5	EET CF	10/18/23 22:14
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		10	402882	A6US	EET CF	10/17/23 21:09
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		4	402757	A6US	EET CF	10/16/23 20:38
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:29
Total/NA	Analysis	SM 2540C		1	402079	ENB7	EET CF	10/10/23 13:38
Total/NA	Analysis	SM 4500 H+ B		1	401848	WZC8	EET CF	10/07/23 09:35
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634835	CMM	EET SL	11/02/23 18:30
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633752	FLC	EET SL	10/27/23 16:54

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-309
Date Collected: 10/04/23 16:30
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38
Total/NA	Analysis	Field Sampling		1	403349	BJ0R	EET CF	10/04/23 16:30

Client Sample ID: MW-310
Date Collected: 10/05/23 11:45
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	403115	QTZ5	EET CF	10/18/23 22:29
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 21:13
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 20:59
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:31
Total/NA	Analysis	SM 2540C		1	402219	DGU1	EET CF	10/11/23 14:04
Total/NA	Analysis	SM 4500 H+ B		1	401848	WZC8	EET CF	10/07/23 09:40
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634835	CMM	EET SL	11/02/23 18:30
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633752	FLC	EET SL	10/27/23 16:54
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38
Total/NA	Analysis	Field Sampling		1	403349	BJ0R	EET CF	10/05/23 11:45

Client Sample ID: MW-310A
Date Collected: 10/05/23 12:15
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	403211	QTZ5	EET CF	10/19/23 10:30
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 21:19
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 21:05
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:33
Total/NA	Analysis	SM 2540C		1	402219	DGU1	EET CF	10/11/23 14:04
Total/NA	Analysis	SM 4500 H+ B		1	401848	WZC8	EET CF	10/07/23 09:17
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634835	CMM	EET SL	11/02/23 18:30
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633752	FLC	EET SL	10/27/23 16:54
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38
Total/NA	Analysis	Field Sampling		1	403349	BJ0R	EET CF	10/05/23 12:15

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-311
Date Collected: 10/05/23 10:45
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	403211	QTZ5	EET CF	10/19/23 11:15
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 21:23
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 21:08
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:35
Total/NA	Analysis	SM 2540C		1	402219	DGU1	EET CF	10/11/23 14:04
Total/NA	Analysis	SM 4500 H+ B		1	401848	WZC8	EET CF	10/07/23 09:58
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634939	CMM	EET SL	11/02/23 18:37
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633752	FLC	EET SL	10/27/23 16:56
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38
Total/NA	Analysis	Field Sampling		1	403349	BJ0R	EET CF	10/05/23 10:45

Client Sample ID: MW-312
Date Collected: 10/03/23 09:50
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 21:26
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 21:10
Total/NA	Analysis	Field Sampling		1	403349	BJ0R	EET CF	10/03/23 09:50

Client Sample ID: MW-313
Date Collected: 10/04/23 14:15
Date Received: 10/06/23 16:15

Lab Sample ID: 310-266692-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		4	402882	A6US	EET CF	10/17/23 21:29
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 21:12
Total/NA	Analysis	SM 2320B		1	402340	WZC8	EET CF	10/11/23 16:22
Total/NA	Analysis	Field Sampling		1	403349	BJ0R	EET CF	10/04/23 14:15

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: MW-313A

Lab Sample ID: 310-266692-18

Date Collected: 10/04/23 13:35

Matrix: Water

Date Received: 10/06/23 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 21:47
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 21:15
Total/NA	Analysis	Field Sampling		1	403349	BJ0R	EET CF	10/04/23 13:35

Client Sample ID: MW-313B

Lab Sample ID: 310-266692-19

Date Collected: 10/04/23 12:50

Matrix: Water

Date Received: 10/06/23 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 21:50
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 21:17
Total/NA	Analysis	Field Sampling		1	403349	BJ0R	EET CF	10/04/23 12:50

Client Sample ID: MW-314

Lab Sample ID: 310-266692-20

Date Collected: 10/05/23 09:45

Matrix: Water

Date Received: 10/06/23 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	403211	QTZ5	EET CF	10/19/23 11:29
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 21:53
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 21:19
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:38
Total/NA	Analysis	SM 2540C		1	402219	DGU1	EET CF	10/11/23 14:04
Total/NA	Analysis	SM 4500 H+ B		1	401848	WZC8	EET CF	10/07/23 10:07
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634939	CMM	EET SL	11/02/23 18:37
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633752	FLC	EET SL	10/27/23 16:56
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38
Total/NA	Analysis	Field Sampling		1	403349	BJ0R	EET CF	10/05/23 09:45

Client Sample ID: Field Blank

Lab Sample ID: 310-266692-21

Date Collected: 10/05/23 10:30

Matrix: Water

Date Received: 10/06/23 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	403211	QTZ5	EET CF	10/19/23 11:44

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Client Sample ID: Field Blank

Lab Sample ID: 310-266692-21

Date Collected: 10/05/23 10:30

Matrix: Water

Date Received: 10/06/23 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402882	A6US	EET CF	10/17/23 21:57
Total/NA	Prep	3005A			402250	KCK5	EET CF	10/12/23 09:15
Total/NA	Analysis	6020B		1	402757	A6US	EET CF	10/16/23 21:21
Total/NA	Prep	7470A			402673	DHM5	EET CF	10/16/23 15:02
Total/NA	Analysis	7470A		1	402839	NFT2	EET CF	10/17/23 14:40
Total/NA	Analysis	SM 2540C		1	402219	DGU1	EET CF	10/11/23 14:04
Total/NA	Analysis	SM 4500 H+ B		1	401848	WZC8	EET CF	10/07/23 10:12
Total/NA	Prep	PrecSep-21			631579	KAC	EET SL	10/11/23 10:21
Total/NA	Analysis	903.0		1	634939	CMM	EET SL	11/02/23 18:37
Total/NA	Prep	PrecSep_0			631580	KAC	EET SL	10/11/23 10:26
Total/NA	Analysis	904.0		1	633752	FLC	EET SL	10/27/23 16:57
Total/NA	Analysis	Ra226_Ra228 Pos		1	635700	EMH	EET SL	11/07/23 16:38

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Accreditation/Certification Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-16-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2320B	Alkalinity	SM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
Field Sampling	Field Sampling	EPA	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

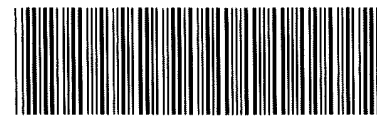
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



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Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>10-6-23</u>	TIME <u>1615</u>	Received By: <u>CC</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID:	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>1</u> of <u>3</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>T</u>		Correction Factor (°C): <u>0.0</u>	
Temp Blank Temperature - If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>1.2</u>		Corrected Temp (°C): <u>1.2</u>	
Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>10-6-23</u>	TIME <u>16:15</u>	Received By: <u>CC</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID:
Multiple Coolers?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>2</u> of <u>3</u>
Cooler Custody Seals Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>T</u>		Correction Factor (°C): <u>0.0</u>	
Temp Blank Temperature - If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>1.8</u>		Corrected Temp (°C): <u>1.8</u>	
Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
a) If yes: Is there evidence that the chilling process began?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?)		<input type="checkbox"/> Yes	<input type="checkbox"/> No
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>10-6-23</u>	TIME <u>1615</u>	Received By: <u>CC</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID:
Multiple Coolers?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>3</u> of <u>3</u>
Cooler Custody Seals Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>T</u>		Correction Factor (°C): <u>0.0</u>	
Temp Blank Temperature - If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>2.0</u>		Corrected Temp (°C): <u>2.0</u>	
Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
a) If yes: Is there evidence that the chilling process began?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?)		<input type="checkbox"/> Yes	<input type="checkbox"/> No
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Chain of Custody Record

Client Information Client Contact: Meghan Blodgett Company: SCS Engineers Address: 2830 Dairy Drive City: Madison State Zip: WI 53718 Phone: 608-224-2830 Email: mblodgett@scsengineers.com Project Name: Burlington Generating Station 25223066 Site: Burlington IA		Lab PM: Sandie Fredrick E-Mail: Sandra.Fredrick@et.eurofins.com Carrier Tracking No(s): State of Origin: IA Job #: 25223066	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 25223066 WO #: 25223066 Project #: 25223066 SSO#:		Analysis Requested Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 6020 Metals total (Sb As Ba Be B Ca Cd Cr Co Fe Pb Li) 7470A Mercury total 6020 Metals total (Fe Li Mo) 6020 Metals total (Fe Li Mg Mn Mo) TDS and pH 9056A Chloride Fluoride Sulfate EPA 903/904 Radium 226 + 228 SM 230B Bicarbonate & carbonate alkalinity Total Number of Containers:	
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Z - other (Specify)	
Special Instructions/Note		Special Instructions/Note	
Sample Identification MW-301 MW-302 MW-302A MW-303 MW-304 MW-305 MW-306 MW-307 MW-307A MW-307B MW-308		Matrix (W=water, S=solid, O=wastewater, BT=Blank, A=Air) Sample Type (C=Comp, G=grab) Sample Date Sample Time Preservation Code	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I II III IV Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: Tyler S Date/Time: 10/16/23 2:00 Company: SCS		Received by:	
Relinquished by:		Received by:	
Relinquished by:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No:		Cooler Temperature(s) °C and Other Remarks: 10-15-23 1615	



Chain of Custody Record

Client Information		Lab PM Sandie Fredrick	Carrier Tracking No(s)	COC No
Client Contact: Meghan Blodgett		E-Mail Sandie.Fredrick@eurofins.com	State of Origin IA	Page: Page 2 of 2
Company SCS Engineers		PWSID	Job #: 25223066	
Address: 2830 Dairy Drive Madison State Zip: WI 53718		Analysis Requested		
Phone: 608-224-2830		6020 Metals total (Fe Li Mo)		
Email: mblodgett@scsengineers.com		6020 Metals total (Fe Li Mg Mn Mo)		
Project Name: Burlington Generating Station 25223066		7470A Mercury total		
Site: Burlington IA		6020 Metals total (Sb As Ba Be B Ca Cd Cr Co Fe Pb Li Mo Se Tl)		
		Perform MS/MSD (Yes or No)		
		Field Filtered Sample (Yes or No)		
		TDS and pH		
		9056A Chloride Fluoride Sulfate		
		EPA 903/904 Radium 226 + 228		
		SM 2320B Bicarbonate & carbonate alkalinity		
		Total Number of Containers		
		Special Instructions/Note		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soils, Organics, etc.)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 Metals total (Sb As Ba Be B Ca Cd Cr Co Fe Pb Li Mo Se Tl)	7470A Mercury total	6020 Metals total (Fe Li Mo)	6020 Metals total (Fe Li Mg Mn Mo)	TDS and pH	9056A Chloride Fluoride Sulfate	EPA 903/904 Radium 226 + 228	SM 2320B Bicarbonate & carbonate alkalinity	State of Origin	Carrier Tracking No(s)
MW-309	10/14/23	4:30	G	W	W	N	X	X	X	X	X	X	X	X	X	IA	
MW-310	10/15/23	11:45	G	W	W	N	X	X	X	X	X	X	X	X	X	IA	
MW-310A	10/15/23	12:15	G	W	W	N	X	X	X	X	X	X	X	X	X	IA	
MW-311	10/15/23	10:45	G	W	W	N	X	X	X	X	X	X	X	X	X	IA	
MW-312	10/13/23	9:50	G	W	W	N	X	X	X	X	X	X	X	X	X	IA	
MW-313	10/14/23	2:15	G	W	W	N	X	X	X	X	X	X	X	X	X	IA	
MW-313A	10/14/23	1:25	G	W	W	N	X	X	X	X	X	X	X	X	X	IA	
MW-313B	10/14/23	12:50	G	W	W	N	X	X	X	X	X	X	X	X	X	IA	
MW-314	10/15/23	9:45	G	W	W	N	X	X	X	X	X	X	X	X	X	IA	
Field Blank	10/15/23	10:30	G	W	W	N	X	X	X	X	X	X	X	X	X	IA	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested I II III IV Other (specify)

Empty Kit Relinquished by _____ Date _____
 Relinquished by *Tyler Stading* Date 10/16/23 2:00
 Relinquished by _____ Date _____
 Relinquished by _____ Date _____

Custody Seals Intact: _____
 A. Yes A. No

Custody Seal No _____

Relinquished by _____ Date _____
 Relinquished by _____ Date _____
 Relinquished by _____ Date _____

Special Instructions/QC Requirements

Return To Client Disposal By Lab Archive For _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Method of Shipment: _____
 Received by _____ Date/Time _____
 Received by _____ Date/Time _____
 Received by _____ Date/Time 10/15

Cooler Temperature(s) °C and Other Remarks:



Table 1. Sampling Points and Parameters CCR Rule Sampling Program Assessment Monitoring
Groundwater Monitoring Burlington Generating Station / JCS Engineers Project #2322666

Parameter	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-308	MW-309	MW-310	MW-310A	MW-311	MW-312	MW-313	MW-313A	MW-313B	MW-314	TW-101	TW-102	Field Blank	TOTAL
Appendix III Parameters	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Boron	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Calcium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Chloride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Fluoride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
pH	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Sulfate	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
TDS	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Appendix IV Parameters																				
Antimony	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Arsenic	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Barium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Beryllium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Cadmium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Chromium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Cobalt	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Fluoride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Lead	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Lithium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Molybdenum	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Nickel	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Selenium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Strontium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Thallium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Radium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14
Field Parameters																				
Groundwater Elevation	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	22
pH (field)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Specific Conductance	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Dissolved Oxygen	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
ORP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Temperature	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Turbidity	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Color	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Other	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Additional Parameters																				
Bicarbonate (total)																				1
Carbonate (total)																				1
Iron (total)																				20
Magnesium (total)																				1
Manganese (total)																				1
Potassium (total)																				0
Sodium (total)																				0

Notes: i:\2323066\00Data and Calculations\Feld Work Requests\April 2023\TTabc_1_165_CCR_Rule_Sampling_2304_updated.xls\Sheet1



Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: Fredrick, Sandie		Lab PM: Fredrick, Sandie		COC No: 310-66097.1	
Client Contact: Shipping/Receiving		Phone: Sandra.Fredrick@et.eurofins.com		E-Mail: Sandra.Fredrick@et.eurofins.com		Page: Page 1 of 2	
Company: TestAmerica Laboratories, Inc.		Address: 13715 Rider Trail North,		State of Origin: Iowa		Job #: 310-266692-1	
City: Earth City		State, Zip: MO, 63045		Accreditations Required (See note): State Program - Iowa		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - NaHSO4 F - MeOH S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify) Other:	
Due Date Requested: 10/19/2023		TAT Requested (days):		Analysis Requested			
PO #:		WO #:		Total Number of Containers			
Project #: 31011020		SSOW#:		Field Filtered Sample (Yes or No)			
Burlington Generating Station 25223066				Perform MS/MSD (Yes or No)			
				903.0/PrecSep_21 Radium-226 (GFP)			
				904.0/PrecSep_0 Radium-228 (GFP)			
				R226, 228GFP_P/ Combined Radium-226 and Radium-228			
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
MW-301 (310-266692-1)		10/3/23		15:25 Central		Water	
MW-302 (310-266692-2)		10/3/23		14:25 Central		Water	
MW-303 (310-266692-4)		10/3/23		12:45 Central		Water	
MW-304 (310-266692-5)		10/3/23		11:40 Central		Water	
MW-305 (310-266692-6)		10/3/23		10:05 Central		Water	
MW-306 (310-266692-7)		10/4/23		15:30 Central		Water	
MW-307 (310-266692-8)		10/4/23		10:35 Central		Water	
MW-308 (310-266692-11)		10/3/23		11:00 Central		Water	
MW-309 (310-266692-12)		10/4/23		16:30 Central		Water	
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.							
Possible Hazard Identification							
Unconfirmed							
Deliverable Requested: I, II, III, IV, Other (specify)							
Primary Deliverable Rank: 2							
Special Instructions/QC Requirements:							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months							
Empty Kit Relinquished by:							
Date: 10/9/23 17:0							
Relinquished by: <i>[Signature]</i>							
Date/Time: 10/9/23 17:0							
Relinquished by: <i>[Signature]</i>							
Date/Time: 10/9/23 17:0							
Relinquished by: <i>[Signature]</i>							
Date/Time: 10/9/23 17:0							
Custody Seals Intact: Custody Seal No.:							
Δ Yes Δ No							
Cooler Temperature(s) °C and Other Remarks:							



Chain of Custody Record

Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:		
Client Contact: Shipping/Receiving		Phone:	Fredrick, Sandie		310-66097.2		
Company: TestAmerica Laboratories, Inc.		E-Mail:	Sandra.Fredrick@et.eurofins.com	State of Origin:	Page 2 of 2		
Address: 13715 Rider Trail North,		Accreditations Required (See note):	State Program - Iowa	Job #:	310-266692-1		
City:	Earth City	Due Date Requested:	10/19/2023	Preservation Codes:			
State, Zip:	MO, 63045	TAT Requested (days):		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDTA Other:			
Phone:	314-298-8566(Tel) 314-298-8757(Fax)	PO #:		Analysis Requested			
Email:		WO #:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - PH 4.5 Y - Trizma Z - other (specify)			
Project Name:	Burlington Generating Station 25223066	Project #:	31011020	<input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> 903.0/PreSep_21 Radium-226 (GFP) <input checked="" type="checkbox"/> 904.0/PreSep_0 Radium-226 (GFP) <input checked="" type="checkbox"/> R226_Z28GFP_C_P/ Combined Radium-226 and Radium-228			
Site:		SSOW#:		<input checked="" type="checkbox"/> Total Number of Containers <input checked="" type="checkbox"/> Special Instructions/Note:			
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)	Preservation Code:	Special Instructions/Note:
MW-310 (310-266692-13)	10/5/23	11:45 Central	Water				DO NOT SHIP ON ICE TO ST. LOUIS
MW-310A (310-266692-14)	10/5/23	12:15 Central	Water				DO NOT SHIP ON ICE TO ST. LOUIS
MW-311 (310-266692-15)	10/5/23	10:45 Central	Water				DO NOT SHIP ON ICE TO ST. LOUIS
MW-314 (310-266692-20)	10/5/23	09:45 Central	Water				DO NOT SHIP ON ICE TO ST. LOUIS
Field Blank (310-266692-21)	10/5/23	10:30 Central	Water				DO NOT SHIP ON ICE TO ST. LOUIS

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Empty Kit Relinquished by: [Signature] Date: 10/9/23 17:10
 Relinquished by: [Signature] Date/Time: 10/9/23 17:10 Company: Fedex
 Relinquished by: [Signature] Date/Time: 10/10/2023 08:40 Company: M. Pimenton
 Relinquished by: [Signature] Date/Time: Company: Fedex
 Custody Seals Intact: Custody Seal No.:
 Δ Yes Δ No
 Cooler Temperature(s) °C and Other Remarks:

Special Instructions/QC Requirements:
 Return To Client
 Disposal By Lab
 Archive For _____ Months
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)



Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-266692-1

Login Number: 266692

List Number: 1

Creator: Costello, Mackenzie K

List Source: Eurofins Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-266692-1

Login Number: 266692

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 10/10/23 11:23 AM

Question	Answer	Comment
Radioactivity wasn't checked or is < /= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Tracer/Carrier Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-266692-1

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	Y
310-266692-1	MW-301	88.8	
310-266692-2	MW-302	79.0	
310-266692-4	MW-303	82.4	
310-266692-5	MW-304	73.6	
310-266692-6	MW-305	89.7	
310-266692-7	MW-306	87.8	
310-266692-8	MW-307	68.0	
310-266692-11	MW-308	82.4	
310-266692-12	MW-309	85.8	
310-266692-13	MW-310	93.2	
310-266692-14	MW-310A	86.3	
310-266692-15	MW-311	81.7	
310-266692-20	MW-314	77.3	
310-266692-21	Field Blank	84.1	
310-266692-21 DU	Field Blank	82.6	
LCS 160-631579/2-A	Lab Control Sample	86.6	
MB 160-631579/1-A	Method Blank	88.5	

Tracer/Carrier Legend

Ba = Barium

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	Y (30-110)
310-266692-1	MW-301	88.8	83.0
310-266692-2	MW-302	79.0	85.2
310-266692-4	MW-303	82.4	83.0
310-266692-5	MW-304	73.6	84.5
310-266692-6	MW-305	89.7	83.4
310-266692-7	MW-306	87.8	83.7
310-266692-8	MW-307	68.0	82.2
310-266692-11	MW-308	82.4	83.4
310-266692-12	MW-309	85.8	83.7
310-266692-13	MW-310	93.2	85.2
310-266692-14	MW-310A	86.3	84.5
310-266692-15	MW-311	81.7	84.1
310-266692-20	MW-314	77.3	85.2
310-266692-21	Field Blank	84.1	84.9
310-266692-21 DU	Field Blank	82.6	86.0
LCS 160-631580/2-A	Lab Control Sample	86.6	84.9
MB 160-631580/1-A	Method Blank	88.5	83.4

Tracer/Carrier Legend

Ba = Barium

Y = Y Carrier

Eurofins Cedar Falls

Table 1. Groundwater Monitoring Results - Field Parameters
Burlington Generating Station / SCS Engineers Project #25223066.00
October 2023

Sample	Sample Date	Temperature (Deg. C)	pH (Std. Units)	Dissolved Oxygen (mg/L)	Specific Conductivity (µmhos/cm)	ORP (mV)	Turbidity	Groundwater Elevation (amsl)
MW-301	10/3/2023	12.9	6.76	0.35	2,278	-90.4	5.90	518.33
MW-302	10/3/2023	12.6	6.65	0.10	797	-53.4	6.25	518.19
MW-302A	10/3/2023	13.9	7.11	0.46	467.3	-46.7	8.28	518.12
MW-303	10/3/2023	12.2	6.87	0.10	954	140.2	4.90	518.06
MW-304	10/3/2023	16.1	6.55	0.16	910	-109.2	4.74	518.08
MW-305	10/3/2023	12.0	6.19	0.20	1,278	-46.3	3.16	518.00
MW-306	10/4/2023	14.7	8.78	0.22	604	-102.7	6.14	518.13
MW-307	10/4/2023	14.9	8.18	1.69	745	-201.0	6.27	518.30
MW-307A	10/4/2023	9.8	7.53	0.20	503.5	-169.0	11.21	519.61
MW-307B	10/4/2023	12.0	7.51	0.30	410.1	-141.9	10.54	518.14
MW-308	10/3/2023	13.2	7.14	0.19	1,766	-143.1	2.04	520.25
MW-309	10/4/2023	15.0	6.92	0.18	1,040	-172.4	6.45	518.42
MW-310	10/5/2023	19.5	7.01	0.11	951	-190.6	9.98	520.39
MW-310A	10/2/2023	19.2	7.30	4.78	982	4.9	15.32	517.75
MW-311	10/5/2023	14.1	6.93	0.14	961	-152.5	9.47	518.68
MW-312	10/3/2023	11.3	6.83	0.13	884	-161.4	5.26	518.03
MW-313	10/4/2023	11.2	7.00	0.11	823	-168.8	9.58	518.18
MW-313A	10/4/2023	8.9	7.49	0.69	433.6	-176.3	3.23	518.05
MW-313B	10/4/2023	8.8	7.13	0.29	546.2	-135.6	6.20	518.12
MW-314	10/5/2023	13.2	6.69	0.35	1313	-130.7	18.75	518.02

Abbreviations:

mg/L = milligrams per liter
mV = millivolts

amsl = above mean sea level
µmhos/cm = micromohs per cm

-- = Not Applicable
NM = not measured

Created by: MDB
Last revision by: RM
Checked by: NLB

Date: 5/10/2023
Date: 10/20/2023
Date: 10/20/2023

C:\Users\hld0\AppData\Local\Microsoft\Windows\NetCache\Content.Outlook\USG3GGGC\[2310 - BGS_CCR_Field.xlsx]GW Field Parameters

C2 April 2024 Assessment Monitoring

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ANALYTICAL REPORT

PREPARED FOR

Attn: Meghan Blodgett
SCS Engineers
2830 Dairy Drive
Madison, Wisconsin 53718
Generated 5/30/2024 2:40:22 PM Revision 1

JOB DESCRIPTION

Burlington Generating Station 25224066
25224066

JOB NUMBER

310-279943-1

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



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Revision 1

Authorized for release by
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Case Narrative

Client: SCS Engineers
Project: Burlington Generating Station 25224066

Job ID: 310-279943-1

Job ID: 310-279943-1

Eurofins Cedar Falls

Job Narrative 310-279943-1

Revision

The report being provided is a revision of the original report sent on 05/28/24. The report (revision 1) is being revised due to: Correct ORP for Sample MW-301 (310-279943-1) from -61.8 mV to -62.8 mV.

Receipt

The samples were received on 4/26/2024 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.6° C, 1.3° C, 3.4° C and 3.8° C.

HPLC/IC

Method 9056A: The following samples were diluted due to the nature of the sample matrix: MW-301 (310-279943-1), MW-302 (310-279943-2), MW-303 (310-279943-4), MW-304 (310-279943-5), MW-305 (310-279943-6), MW-306 (310-279943-7), MW-307 (310-279943-8), MW-308 (310-279943-11) and MW-310 (310-279943-13). Elevated reporting limits (RLs) are provided.

Method 9056A: The following samples were diluted due to the nature of the sample matrix: MW-309 (310-279943-12), MW-311 (310-279943-15) and MW-314 (310-279943-20). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

RAD

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Eurofins Cedar Falls

Sample Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
SDG: 25224066

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-279943-1	MW-301	Water	04/24/24 09:00	04/26/24 16:00
310-279943-2	MW-302	Water	04/24/24 10:25	04/26/24 16:00
310-279943-3	MW-302A	Water	04/24/24 10:50	04/26/24 16:00
310-279943-4	MW-303	Water	04/23/24 15:10	04/26/24 16:00
310-279943-5	MW-304	Water	04/23/24 14:25	04/26/24 16:00
310-279943-6	MW-305	Water	04/23/24 12:00	04/26/24 16:00
310-279943-7	MW-306	Water	04/24/24 15:35	04/26/24 16:00
310-279943-8	MW-307	Water	04/24/24 12:55	04/26/24 16:00
310-279943-9	MW-307A	Water	04/24/24 13:45	04/26/24 16:00
310-279943-10	MW-307B	Water	04/24/24 14:35	04/26/24 16:00
310-279943-11	MW-308	Water	04/23/24 11:05	04/26/24 16:00
310-279943-12	MW-309	Water	04/25/24 09:35	04/26/24 16:00
310-279943-13	MW-310	Water	04/23/24 09:50	04/26/24 16:00
310-279943-14	MW-310A	Water	04/25/24 11:05	04/26/24 16:00
310-279943-15	MW-311	Water	04/25/24 11:45	04/26/24 16:00
310-279943-16	MW-312	Water	04/23/24 13:10	04/26/24 16:00
310-279943-17	MW-313	Water	04/24/24 16:35	04/26/24 16:00
310-279943-18	MW-313A	Water	04/25/24 08:20	04/26/24 16:00
310-279943-19	MW-313B	Water	04/25/24 08:55	04/26/24 16:00
310-279943-20	MW-314	Water	04/25/24 10:35	04/26/24 16:00
310-279943-21	Field Blank	Water	04/25/24 10:30	04/26/24 16:00

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Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-301

Lab Sample ID: 310-279943-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	930		20	8.4	mg/L	20		9056A	Total/NA
Arsenic	7.1		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	38		2.0	0.66	ug/L	1		6020B	Total/NA
Boron	5600		500	380	ug/L	5		6020B	Total/NA
Calcium	180		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	10		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	18000		100	36	ug/L	1		6020B	Total/NA
Lithium	14		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	64	F1	2.0	1.3	ug/L	1		6020B	Total/NA
Total Dissolved Solids	1700		50	42	mg/L	1		SM 2540C	Total/NA
pH	6.9	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	521.23				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-62.8				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.21				mg/L	1		Field Sampling	Total/NA
Field pH	6.63				SU	1		Field Sampling	Total/NA
Field Conductivity	2450				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.1				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	16.54				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-302

Lab Sample ID: 310-279943-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	390		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	4.6		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	53		2.0	0.66	ug/L	1		6020B	Total/NA
Boron	2000		100	76	ug/L	1		6020B	Total/NA
Calcium	170		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	6.6		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	8800		100	36	ug/L	1		6020B	Total/NA
Lithium	49		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	210		2.0	1.3	ug/L	1		6020B	Total/NA
Total Dissolved Solids	780		50	42	mg/L	1		SM 2540C	Total/NA
pH	6.8	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	520.85				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-20.1				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.21				mg/L	1		Field Sampling	Total/NA
Field pH	6.53				SU	1		Field Sampling	Total/NA
Field Conductivity	1126				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	11.3				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	14.50				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-302A

Lab Sample ID: 310-279943-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	4000		100	36	ug/L	1		6020B	Total/NA
Lithium	5.7	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	12		2.0	1.3	ug/L	1		6020B	Total/NA
Groundwater Elevation	520.78				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-103.2				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.36				mg/L	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-302A (Continued)

Lab Sample ID: 310-279943-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field pH	7.20				SU	1		Field Sampling	Total/NA
Field Conductivity	489.9				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	10.6				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	13.13				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-303

Lab Sample ID: 310-279943-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	31		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	340		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	17		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	170		2.0	0.66	ug/L	1		6020B	Total/NA
Boron	8100		400	300	ug/L	4		6020B	Total/NA
Calcium	150		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	1.7		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	19000		100	36	ug/L	1		6020B	Total/NA
Lithium	35		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	160		2.0	1.3	ug/L	1		6020B	Total/NA
Total Dissolved Solids	740		50	42	mg/L	1		SM 2540C	Total/NA
pH	6.8	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	520.89				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-82.5				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.18				mg/L	1		Field Sampling	Total/NA
Field pH	6.71				SU	1		Field Sampling	Total/NA
Field Conductivity	1165				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	11.6				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	9.98				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-304

Lab Sample ID: 310-279943-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	38		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	190		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	15		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	63		2.0	0.66	ug/L	1		6020B	Total/NA
Boron	4400		100	76	ug/L	1		6020B	Total/NA
Cadmium	0.15	J	0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	110		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	1.5		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	23000		100	36	ug/L	1		6020B	Total/NA
Lithium	110		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	470		2.0	1.3	ug/L	1		6020B	Total/NA
Total Dissolved Solids	530		50	42	mg/L	1		SM 2540C	Total/NA
pH	6.9	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	520.90				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-90.4				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.18				mg/L	1		Field Sampling	Total/NA
Field pH	6.76				SU	1		Field Sampling	Total/NA
Field Conductivity	923				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	14.4				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	9.15				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-305

Lab Sample ID: 310-279943-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	32		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	230		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	3.9		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	37		2.0	0.66	ug/L	1		6020B	Total/NA
Boron	1800		100	76	ug/L	1		6020B	Total/NA
Calcium	99		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	4.7		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	31000		100	36	ug/L	1		6020B	Total/NA
Lithium	25		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	4.3		2.0	1.3	ug/L	1		6020B	Total/NA
Total Dissolved Solids	580		50	42	mg/L	1		SM 2540C	Total/NA
pH	6.6	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	520.96				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-33.6				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.17				mg/L	1		Field Sampling	Total/NA
Field pH	6.31				SU	1		Field Sampling	Total/NA
Field Conductivity	955				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.9				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	11.17				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-306

Lab Sample ID: 310-279943-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	36		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	100		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	32		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	79		2.0	0.66	ug/L	1		6020B	Total/NA
Boron	2200		100	76	ug/L	1		6020B	Total/NA
Calcium	93		0.50	0.19	mg/L	1		6020B	Total/NA
Lithium	23		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	63		2.0	1.3	ug/L	1		6020B	Total/NA
Total Dissolved Solids	400		50	42	mg/L	1		SM 2540C	Total/NA
pH	8.9	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	520.89				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-134.8				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.15				mg/L	1		Field Sampling	Total/NA
Field pH	8.66				SU	1		Field Sampling	Total/NA
Field Conductivity	662				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.2				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	18.80				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307

Lab Sample ID: 310-279943-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	28		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	210		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	12		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	47		2.0	0.66	ug/L	1		6020B	Total/NA
Boron	3200		100	76	ug/L	1		6020B	Total/NA
Cadmium	0.10	J	0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	47		0.50	0.19	mg/L	1		6020B	Total/NA
Iron	590		100	36	ug/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-307 (Continued)

Lab Sample ID: 310-279943-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	79		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	320		2.0	1.3	ug/L	1		6020B	Total/NA
Total Dissolved Solids	370		50	42	mg/L	1		SM 2540C	Total/NA
pH	8.6	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	521.08				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-216.9				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.26				mg/L	1		Field Sampling	Total/NA
Field pH	8.60				SU	1		Field Sampling	Total/NA
Field Conductivity	658				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	11.6				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	15.20				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307A

Lab Sample ID: 310-279943-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1600		100	36	ug/L	1		6020B	Total/NA
Lithium	9.9	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	5.2		2.0	1.3	ug/L	1		6020B	Total/NA
Groundwater Elevation	522.38				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-128.2				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.18				mg/L	1		Field Sampling	Total/NA
Field pH	7.51				SU	1		Field Sampling	Total/NA
Field Conductivity	478.7				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	9.8				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	18.65				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307B

Lab Sample ID: 310-279943-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1700		100	36	ug/L	1		6020B	Total/NA
Lithium	7.2	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	10		2.0	1.3	ug/L	1		6020B	Total/NA
Groundwater Elevation	520.96				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-103.0				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.26				mg/L	1		Field Sampling	Total/NA
Field pH	7.37				SU	1		Field Sampling	Total/NA
Field Conductivity	462.9				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	10.3				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	14.36				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-308

Lab Sample ID: 310-279943-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	50		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	700		20	8.4	mg/L	20		9056A	Total/NA
Arsenic	5.3		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	75		2.0	0.66	ug/L	1		6020B	Total/NA
Boron	5700		700	530	ug/L	7		6020B	Total/NA
Cadmium	0.17	J	0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	150		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	1.4		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	2200		100	36	ug/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-308 (Continued)

Lab Sample ID: 310-279943-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	240		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	560		2.0	1.3	ug/L	1		6020B	Total/NA
Total Dissolved Solids	1200		50	42	mg/L	1		SM 2540C	Total/NA
pH	7.4	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	521.36				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-69.9				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.26				mg/L	1		Field Sampling	Total/NA
Field pH	7.16				SU	1		Field Sampling	Total/NA
Field Conductivity	1672				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.2				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	8.40				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-309

Lab Sample ID: 310-279943-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	29		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	120		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	21		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	130		2.0	0.66	ug/L	1		6020B	Total/NA
Boron	12000		400	300	ug/L	4		6020B	Total/NA
Calcium	84		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	0.17	J	0.50	0.17	ug/L	1		6020B	Total/NA
Iron	20000		100	36	ug/L	1		6020B	Total/NA
Lithium	4.8	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	44		2.0	1.3	ug/L	1		6020B	Total/NA
Total Dissolved Solids	530		50	42	mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	521.18				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-118.3				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.20				mg/L	1		Field Sampling	Total/NA
Field pH	6.88				SU	1		Field Sampling	Total/NA
Field Conductivity	908				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	13.4				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	22.15				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-310

Lab Sample ID: 310-279943-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	16		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	130		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	24		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	240		2.0	0.66	ug/L	1		6020B	Total/NA
Boron	330		100	76	ug/L	1		6020B	Total/NA
Calcium	99		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	1.6		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	15000		100	36	ug/L	1		6020B	Total/NA
Molybdenum	3.0		2.0	1.3	ug/L	1		6020B	Total/NA
Total Dissolved Solids	430		50	42	mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	523.93				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-141.7				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.24				mg/L	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-310 (Continued)

Lab Sample ID: 310-279943-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field pH	7.09				SU	1		Field Sampling	Total/NA
Field Conductivity	747				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	9.3				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	16.10				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-310A

Lab Sample ID: 310-279943-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.3		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.38	J	1.0	0.38	mg/L	5		9056A	Total/NA
Sulfate	74		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	1.7	J	2.0	0.53	ug/L	1		6020B	Total/NA
Barium	52		2.0	0.66	ug/L	1		6020B	Total/NA
Boron	930		100	76	ug/L	1		6020B	Total/NA
Calcium	49		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	0.67		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	270		100	36	ug/L	1		6020B	Total/NA
Lead	0.51		0.50	0.26	ug/L	1		6020B	Total/NA
Lithium	41		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	7.5		2.0	1.3	ug/L	1		6020B	Total/NA
Total Dissolved Solids	550		50	42	mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	521.84				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	35.4				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	4.09				mg/L	1		Field Sampling	Total/NA
Field pH	6.90				SU	1		Field Sampling	Total/NA
Field Conductivity	1173				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	11.9				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	37.08				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-311

Lab Sample ID: 310-279943-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	47		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	250		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	6.3		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	98		2.0	0.66	ug/L	1		6020B	Total/NA
Boron	1400		100	76	ug/L	1		6020B	Total/NA
Calcium	180		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	3.4		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	16000		100	36	ug/L	1		6020B	Total/NA
Lithium	2.8	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	4.7		2.0	1.3	ug/L	1		6020B	Total/NA
Total Dissolved Solids	790		50	42	mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	522.23				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-87.6				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.19				mg/L	1		Field Sampling	Total/NA
Field pH	6.76				SU	1		Field Sampling	Total/NA
Field Conductivity	1279				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	11.3				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	13.18				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-312

Lab Sample ID: 310-279943-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	16000		100	36	ug/L	1		6020B	Total/NA
Lithium	19		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	31		2.0	1.3	ug/L	1		6020B	Total/NA
Groundwater Elevation	520.93				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-100.0				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.25				mg/L	1		Field Sampling	Total/NA
Field pH	6.90				SU	1		Field Sampling	Total/NA
Field Conductivity	778				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	10.8				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	13.65				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313

Lab Sample ID: 310-279943-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	9300		100	36	ug/L	1		6020B	Total/NA
Lithium	15		10	2.5	ug/L	1		6020B	Total/NA
Magnesium	12000		500	150	ug/L	1		6020B	Total/NA
Manganese	4600		10	3.6	ug/L	1		6020B	Total/NA
Molybdenum	51		2.0	1.3	ug/L	1		6020B	Total/NA
Bicarbonate Alkalinity as CaCO3	310		5.0	2.5	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	310		5.0	2.5	mg/L	1		SM 2320B	Total/NA
Groundwater Elevation	520.87				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-112.7				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.23				mg/L	1		Field Sampling	Total/NA
Field pH	7.05				SU	1		Field Sampling	Total/NA
Field Conductivity	679				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	9.8				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	24.48				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313A

Lab Sample ID: 310-279943-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1900		100	36	ug/L	1		6020B	Total/NA
Lithium	5.6	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	5.2		2.0	1.3	ug/L	1		6020B	Total/NA
Groundwater Elevation	520.87				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-119.3				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.27				mg/L	1		Field Sampling	Total/NA
Field pH	7.43				SU	1		Field Sampling	Total/NA
Field Conductivity	438.1				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	8.0				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	10.93				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313B

Lab Sample ID: 310-279943-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	2100		100	36	ug/L	1		6020B	Total/NA
Lithium	6.6	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	13		2.0	1.3	ug/L	1		6020B	Total/NA
Groundwater Elevation	520.92				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-94.7				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.29				mg/L	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-313B (Continued)

Lab Sample ID: 310-279943-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field pH	7.30				SU	1		Field Sampling	Total/NA
Field Conductivity	483.1				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	8.6				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	11.59				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-314

Lab Sample ID: 310-279943-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	93		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	3.9		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	290	F1	2.0	0.66	ug/L	1		6020B	Total/NA
Boron	130		100	76	ug/L	1		6020B	Total/NA
Calcium	160		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	0.59		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	15000		100	36	ug/L	1		6020B	Total/NA
Lithium	4.4	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	1.7	J	2.0	1.3	ug/L	1		6020B	Total/NA
Total Dissolved Solids	650		50	42	mg/L	1		SM 2540C	Total/NA
pH	6.9	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	520.95				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-72.1				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.38				mg/L	1		Field Sampling	Total/NA
Field pH	6.64				SU	1		Field Sampling	Total/NA
Field Conductivity	1148				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	11.7				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	12.56				NTU	1		Field Sampling	Total/NA

Client Sample ID: Field Blank

Lab Sample ID: 310-279943-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	6.6	HF	1.0	1.0	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-301
 Date Collected: 04/24/24 09:00
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-1
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15		5.0	2.3	mg/L			04/30/24 12:41	5
Fluoride	<0.38		1.0	0.38	mg/L			04/30/24 12:41	5
Sulfate	930		20	8.4	mg/L			04/30/24 16:11	20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 20:18	1
Arsenic	7.1		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 20:18	1
Barium	38		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 20:18	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 20:18	1
Boron	5600		500	380	ug/L		04/30/24 09:00	05/02/24 22:03	5
Cadmium	<0.10		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 20:18	1
Calcium	180		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 20:18	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 20:18	1
Cobalt	10		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 20:18	1
Iron	18000		100	36	ug/L		04/30/24 09:00	05/01/24 20:18	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 20:18	1
Lithium	14		10	2.5	ug/L		04/30/24 09:00	05/01/24 20:18	1
Molybdenum	64 F1		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 20:18	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 20:18	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 20:18	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:18	05/08/24 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1700		50	42	mg/L			04/27/24 11:12	1
pH (SM 4500 H+ B)	6.9 HF		1.0	1.0	SU			04/26/24 17:13	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0765	U	0.0778	0.0781	1.00	0.120	pCi/L	05/01/24 08:34	05/26/24 13:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	90.4		30 - 110					05/01/24 08:34	05/26/24 13:14	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.124	U	0.314	0.314	1.00	0.558	pCi/L	05/01/24 08:40	05/22/24 11:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	90.4		30 - 110					05/01/24 08:40	05/22/24 11:47	1
Y Carrier	73.6		30 - 110					05/01/24 08:40	05/22/24 11:47	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-301
 Date Collected: 04/24/24 09:00
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-1
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.200	U	0.323	0.324	5.00	0.558	pCi/L		05/28/24 08:52	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	521.23				ft			04/24/24 09:00	1
Oxidation Reduction Potential	-62.8				mV			04/24/24 09:00	1
Oxygen, Dissolved	0.21				mg/L			04/24/24 09:00	1
Field pH	6.63				SU			04/24/24 09:00	1
Field Conductivity	2450				umhos/cm			04/24/24 09:00	1
Field Temperature	12.1				Degrees C			04/24/24 09:00	1
Field Turbidity	16.54				NTU			04/24/24 09:00	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-302
 Date Collected: 04/24/24 10:25
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-2
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		5.0	2.3	mg/L			04/30/24 12:53	5
Fluoride	<0.38		1.0	0.38	mg/L			04/30/24 12:53	5
Sulfate	390		5.0	2.1	mg/L			04/30/24 12:53	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 20:37	1
Arsenic	4.6		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 20:37	1
Barium	53		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 20:37	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 20:37	1
Boron	2000		100	76	ug/L		04/30/24 09:00	05/01/24 20:37	1
Cadmium	<0.10		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 20:37	1
Calcium	170		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 20:37	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 20:37	1
Cobalt	6.6		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 20:37	1
Iron	8800		100	36	ug/L		04/30/24 09:00	05/01/24 20:37	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 20:37	1
Lithium	49		10	2.5	ug/L		04/30/24 09:00	05/01/24 20:37	1
Molybdenum	210		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 20:37	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 20:37	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 20:37	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11	F1	0.20	0.11	ug/L		05/02/24 15:18	05/08/24 11:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	780		50	42	mg/L			04/27/24 11:12	1
pH (SM 4500 H+ B)	6.8	HF	1.0	1.0	SU			04/26/24 17:14	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.120	U	0.0891	0.0898	1.00	0.124	pCi/L	05/01/24 08:34	05/26/24 13:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	91.6		30 - 110					05/01/24 08:34	05/26/24 13:14	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.677		0.378	0.383	1.00	0.529	pCi/L	05/01/24 08:40	05/22/24 11:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	91.6		30 - 110					05/01/24 08:40	05/22/24 11:47	1
Y Carrier	74.0		30 - 110					05/01/24 08:40	05/22/24 11:47	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-302
 Date Collected: 04/24/24 10:25
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-2
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.797		0.388	0.393	5.00	0.529	pCi/L		05/28/24 08:52	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.85				ft			04/24/24 10:25	1
Oxidation Reduction Potential	-20.1				mV			04/24/24 10:25	1
Oxygen, Dissolved	0.21				mg/L			04/24/24 10:25	1
Field pH	6.53				SU			04/24/24 10:25	1
Field Conductivity	1126				umhos/cm			04/24/24 10:25	1
Field Temperature	11.3				Degrees C			04/24/24 10:25	1
Field Turbidity	14.50				NTU			04/24/24 10:25	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-302A
 Date Collected: 04/24/24 10:50
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-3
 Matrix: Water

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	4000		100	36	ug/L		04/30/24 09:00	05/01/24 20:40	1
Lithium	5.7	J	10	2.5	ug/L		04/30/24 09:00	05/01/24 20:40	1
Molybdenum	12		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 20:40	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.78				ft			04/24/24 10:50	1
Oxidation Reduction Potential	-103.2				mV			04/24/24 10:50	1
Oxygen, Dissolved	0.36				mg/L			04/24/24 10:50	1
Field pH	7.20				SU			04/24/24 10:50	1
Field Conductivity	489.9				umhos/cm			04/24/24 10:50	1
Field Temperature	10.6				Degrees C			04/24/24 10:50	1
Field Turbidity	13.13				NTU			04/24/24 10:50	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-303
 Date Collected: 04/23/24 15:10
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-4
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31		5.0	2.3	mg/L			04/30/24 13:05	5
Fluoride	<0.38		1.0	0.38	mg/L			04/30/24 13:05	5
Sulfate	340		5.0	2.1	mg/L			04/30/24 13:05	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 20:42	1
Arsenic	17		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 20:42	1
Barium	170		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 20:42	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 20:42	1
Boron	8100		400	300	ug/L		04/30/24 09:00	05/02/24 22:28	4
Cadmium	<0.10		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 20:42	1
Calcium	150		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 20:42	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 20:42	1
Cobalt	1.7		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 20:42	1
Iron	19000		100	36	ug/L		04/30/24 09:00	05/01/24 20:42	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 20:42	1
Lithium	35		10	2.5	ug/L		04/30/24 09:00	05/01/24 20:42	1
Molybdenum	160		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 20:42	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 20:42	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 20:42	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:09	05/06/24 13:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	740		50	42	mg/L			04/27/24 11:29	1
pH (SM 4500 H+ B)	6.8	HF	1.0	1.0	SU			04/26/24 17:18	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.266		0.119	0.121	1.00	0.129	pCi/L	05/01/24 08:34	05/26/24 13:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	91.4		30 - 110					05/01/24 08:34	05/26/24 13:14	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.152	U	0.292	0.293	1.00	0.511	pCi/L	05/01/24 08:40	05/22/24 11:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	91.4		30 - 110					05/01/24 08:40	05/22/24 11:47	1
Y Carrier	74.4		30 - 110					05/01/24 08:40	05/22/24 11:47	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-303
 Date Collected: 04/23/24 15:10
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-4
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.418	U	0.315	0.317	5.00	0.511	pCi/L		05/28/24 08:52	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.89				ft			04/23/24 15:10	1
Oxidation Reduction Potential	-82.5				mV			04/23/24 15:10	1
Oxygen, Dissolved	0.18				mg/L			04/23/24 15:10	1
Field pH	6.71				SU			04/23/24 15:10	1
Field Conductivity	1165				umhos/cm			04/23/24 15:10	1
Field Temperature	11.6				Degrees C			04/23/24 15:10	1
Field Turbidity	9.98				NTU			04/23/24 15:10	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-304
 Date Collected: 04/23/24 14:25
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-5
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	38		5.0	2.3	mg/L			04/30/24 13:18	5
Fluoride	<0.38		1.0	0.38	mg/L			04/30/24 13:18	5
Sulfate	190		5.0	2.1	mg/L			04/30/24 13:18	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 20:44	1
Arsenic	15		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 20:44	1
Barium	63		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 20:44	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 20:44	1
Boron	4400		100	76	ug/L		04/30/24 09:00	05/01/24 20:44	1
Cadmium	0.15 J		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 20:44	1
Calcium	110		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 20:44	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 20:44	1
Cobalt	1.5		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 20:44	1
Iron	23000		100	36	ug/L		04/30/24 09:00	05/01/24 20:44	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 20:44	1
Lithium	110		10	2.5	ug/L		04/30/24 09:00	05/01/24 20:44	1
Molybdenum	470		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 20:44	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 20:44	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 20:44	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:09	05/06/24 14:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	530		50	42	mg/L			04/27/24 11:29	1
pH (SM 4500 H+ B)	6.9 HF		1.0	1.0	SU			04/26/24 17:19	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.194		0.105	0.106	1.00	0.123	pCi/L	05/01/24 08:34	05/26/24 13:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	86.8		30 - 110					05/01/24 08:34	05/26/24 13:14	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	-0.0738	U	0.326	0.326	1.00	0.631	pCi/L	05/01/24 08:40	05/22/24 11:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	86.8		30 - 110					05/01/24 08:40	05/22/24 11:48	1
Y Carrier	75.1		30 - 110					05/01/24 08:40	05/22/24 11:48	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-304
 Date Collected: 04/23/24 14:25
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-5
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.194	U	0.342	0.343	5.00	0.631	pCi/L		05/28/24 08:52	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.90				ft			04/23/24 14:25	1
Oxidation Reduction Potential	-90.4				mV			04/23/24 14:25	1
Oxygen, Dissolved	0.18				mg/L			04/23/24 14:25	1
Field pH	6.76				SU			04/23/24 14:25	1
Field Conductivity	923				umhos/cm			04/23/24 14:25	1
Field Temperature	14.4				Degrees C			04/23/24 14:25	1
Field Turbidity	9.15				NTU			04/23/24 14:25	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-305
 Date Collected: 04/23/24 12:00
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-6
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32		5.0	2.3	mg/L			04/30/24 13:30	5
Fluoride	<0.38		1.0	0.38	mg/L			04/30/24 13:30	5
Sulfate	230		5.0	2.1	mg/L			04/30/24 13:30	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 20:46	1
Arsenic	3.9		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 20:46	1
Barium	37		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 20:46	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 20:46	1
Boron	1800		100	76	ug/L		04/30/24 09:00	05/01/24 20:46	1
Cadmium	<0.10		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 20:46	1
Calcium	99		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 20:46	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 20:46	1
Cobalt	4.7		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 20:46	1
Iron	31000		100	36	ug/L		04/30/24 09:00	05/01/24 20:46	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 20:46	1
Lithium	25		10	2.5	ug/L		04/30/24 09:00	05/01/24 20:46	1
Molybdenum	4.3		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 20:46	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 20:46	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 20:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:18	05/08/24 11:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	580		50	42	mg/L			04/27/24 11:29	1
pH (SM 4500 H+ B)	6.6	HF	1.0	1.0	SU			04/26/24 17:21	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count		RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Total						
			(2σ+/-)	(2σ+/-)						
Radium 226	-0.00104	U	0.0720	0.0720	1.00	0.150	pCi/L	05/01/24 08:34	05/26/24 13:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	84.8		30 - 110					05/01/24 08:34	05/26/24 13:15	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count		RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Total						
			(2σ+/-)	(2σ+/-)						
Radium 228	0.681	U	0.484	0.488	1.00	0.730	pCi/L	05/01/24 08:40	05/22/24 11:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	84.8		30 - 110					05/01/24 08:40	05/22/24 11:48	1
Y Carrier	62.8		30 - 110					05/01/24 08:40	05/22/24 11:48	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-305
 Date Collected: 04/23/24 12:00
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-6
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.681	U	0.489	0.493	5.00	0.730	pCi/L		05/28/24 08:52	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.96				ft			04/23/24 12:00	1
Oxidation Reduction Potential	-33.6				mV			04/23/24 12:00	1
Oxygen, Dissolved	0.17				mg/L			04/23/24 12:00	1
Field pH	6.31				SU			04/23/24 12:00	1
Field Conductivity	955				umhos/cm			04/23/24 12:00	1
Field Temperature	12.9				Degrees C			04/23/24 12:00	1
Field Turbidity	11.17				NTU			04/23/24 12:00	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-306
 Date Collected: 04/24/24 15:35
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-7
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36		5.0	2.3	mg/L			04/30/24 14:46	5
Fluoride	<0.38		1.0	0.38	mg/L			04/30/24 14:46	5
Sulfate	100		5.0	2.1	mg/L			04/30/24 14:46	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 20:48	1
Arsenic	32		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 20:48	1
Barium	79		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 20:48	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 20:48	1
Boron	2200		100	76	ug/L		04/30/24 09:00	05/01/24 20:48	1
Cadmium	<0.10		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 20:48	1
Calcium	93		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 20:48	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 20:48	1
Cobalt	<0.17		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 20:48	1
Iron	<36		100	36	ug/L		04/30/24 09:00	05/01/24 20:48	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 20:48	1
Lithium	23		10	2.5	ug/L		04/30/24 09:00	05/01/24 20:48	1
Molybdenum	63		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 20:48	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 20:48	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 20:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:18	05/08/24 11:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	400		50	42	mg/L			04/27/24 11:12	1
pH (SM 4500 H+ B)	8.9	HF	1.0	1.0	SU			04/26/24 17:22	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0168	U	0.0652	0.0652	1.00	0.128	pCi/L	05/01/24 08:34	05/26/24 13:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	89.1		30 - 110					05/01/24 08:34	05/26/24 13:15	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	-0.214	U	0.369	0.369	1.00	0.765	pCi/L	05/01/24 08:40	05/22/24 11:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	89.1		30 - 110					05/01/24 08:40	05/22/24 11:48	1
Y Carrier	56.1		30 - 110					05/01/24 08:40	05/22/24 11:48	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-306
 Date Collected: 04/24/24 15:35
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-7
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.0168	U	0.375	0.375	5.00	0.765	pCi/L		05/28/24 08:52	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.89				ft			04/24/24 15:35	1
Oxidation Reduction Potential	-134.8				mV			04/24/24 15:35	1
Oxygen, Dissolved	0.15				mg/L			04/24/24 15:35	1
Field pH	8.66				SU			04/24/24 15:35	1
Field Conductivity	662				umhos/cm			04/24/24 15:35	1
Field Temperature	12.2				Degrees C			04/24/24 15:35	1
Field Turbidity	18.80				NTU			04/24/24 15:35	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-307
 Date Collected: 04/24/24 12:55
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-8
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28		5.0	2.3	mg/L			04/30/24 14:58	5
Fluoride	<0.38		1.0	0.38	mg/L			04/30/24 14:58	5
Sulfate	210		5.0	2.1	mg/L			04/30/24 14:58	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 20:51	1
Arsenic	12		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 20:51	1
Barium	47		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 20:51	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 20:51	1
Boron	3200		100	76	ug/L		04/30/24 09:00	05/01/24 20:51	1
Cadmium	0.10	J	0.20	0.10	ug/L		04/30/24 09:00	05/01/24 20:51	1
Calcium	47		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 20:51	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 20:51	1
Cobalt	<0.17		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 20:51	1
Iron	590		100	36	ug/L		04/30/24 09:00	05/01/24 20:51	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 20:51	1
Lithium	79		10	2.5	ug/L		04/30/24 09:00	05/01/24 20:51	1
Molybdenum	320		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 20:51	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 20:51	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 20:51	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:18	05/08/24 11:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	370		50	42	mg/L			04/27/24 11:12	1
pH (SM 4500 H+ B)	8.6	HF	1.0	1.0	SU			04/26/24 17:23	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count		RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Total						
			(2σ+/-)	(2σ+/-)						
Radium 226	0.0654	U	0.0681	0.0683	1.00	0.104	pCi/L	05/01/24 08:34	05/26/24 13:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	87.6		30 - 110					05/01/24 08:34	05/26/24 13:15	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count		RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Total						
			(2σ+/-)	(2σ+/-)						
Radium 228	0.530	U	0.371	0.374	1.00	0.553	pCi/L	05/01/24 08:40	05/22/24 11:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	87.6		30 - 110					05/01/24 08:40	05/22/24 11:48	1
Y Carrier	74.4		30 - 110					05/01/24 08:40	05/22/24 11:48	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-307
 Date Collected: 04/24/24 12:55
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-8
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.595		0.377	0.380	5.00	0.553	pCi/L		05/28/24 08:52	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	521.08				ft			04/24/24 12:55	1
Oxidation Reduction Potential	-216.9				mV			04/24/24 12:55	1
Oxygen, Dissolved	0.26				mg/L			04/24/24 12:55	1
Field pH	8.60				SU			04/24/24 12:55	1
Field Conductivity	658				umhos/cm			04/24/24 12:55	1
Field Temperature	11.6				Degrees C			04/24/24 12:55	1
Field Turbidity	15.20				NTU			04/24/24 12:55	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-307A
 Date Collected: 04/24/24 13:45
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-9
 Matrix: Water

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1600		100	36	ug/L		04/30/24 09:00	05/01/24 20:53	1
Lithium	9.9	J	10	2.5	ug/L		04/30/24 09:00	05/01/24 20:53	1
Molybdenum	5.2		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 20:53	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	522.38				ft			04/24/24 13:45	1
Oxidation Reduction Potential	-128.2				mV			04/24/24 13:45	1
Oxygen, Dissolved	0.18				mg/L			04/24/24 13:45	1
Field pH	7.51				SU			04/24/24 13:45	1
Field Conductivity	478.7				umhos/cm			04/24/24 13:45	1
Field Temperature	9.8				Degrees C			04/24/24 13:45	1
Field Turbidity	18.65				NTU			04/24/24 13:45	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-307B

Lab Sample ID: 310-279943-10

Date Collected: 04/24/24 14:35

Matrix: Water

Date Received: 04/26/24 16:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1700		100	36	ug/L		04/30/24 09:00	05/01/24 20:55	1
Lithium	7.2	J	10	2.5	ug/L		04/30/24 09:00	05/01/24 20:55	1
Molybdenum	10		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 20:55	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.96				ft			04/24/24 14:35	1
Oxidation Reduction Potential	-103.0				mV			04/24/24 14:35	1
Oxygen, Dissolved	0.26				mg/L			04/24/24 14:35	1
Field pH	7.37				SU			04/24/24 14:35	1
Field Conductivity	462.9				umhos/cm			04/24/24 14:35	1
Field Temperature	10.3				Degrees C			04/24/24 14:35	1
Field Turbidity	14.36				NTU			04/24/24 14:35	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-308
 Date Collected: 04/23/24 11:05
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-11
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50		5.0	2.3	mg/L			04/30/24 15:10	5
Fluoride	<0.38		1.0	0.38	mg/L			04/30/24 15:10	5
Sulfate	700		20	8.4	mg/L			04/30/24 16:23	20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 20:57	1
Arsenic	5.3		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 20:57	1
Barium	75		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 20:57	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 20:57	1
Boron	5700		700	530	ug/L		04/30/24 09:00	05/02/24 22:31	7
Cadmium	0.17	J	0.20	0.10	ug/L		04/30/24 09:00	05/01/24 20:57	1
Calcium	150		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 20:57	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 20:57	1
Cobalt	1.4		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 20:57	1
Iron	2200		100	36	ug/L		04/30/24 09:00	05/01/24 20:57	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 20:57	1
Lithium	240		10	2.5	ug/L		04/30/24 09:00	05/01/24 20:57	1
Molybdenum	560		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 20:57	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 20:57	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 20:57	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:18	05/08/24 11:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1200		50	42	mg/L			04/27/24 11:29	1
pH (SM 4500 H+ B)	7.4	HF	1.0	1.0	SU			04/26/24 17:24	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.170		0.113	0.114	1.00	0.156	pCi/L	05/01/24 08:34	05/26/24 13:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	86.8		30 - 110					05/01/24 08:34	05/26/24 13:15	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.432	U	0.377	0.379	1.00	0.591	pCi/L	05/01/24 08:40	05/22/24 11:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	86.8		30 - 110					05/01/24 08:40	05/22/24 11:48	1
Y Carrier	74.0		30 - 110					05/01/24 08:40	05/22/24 11:48	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-308
 Date Collected: 04/23/24 11:05
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-11
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.602		0.394	0.396	5.00	0.591	pCi/L		05/28/24 10:46	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	521.36				ft			04/23/24 11:05	1
Oxidation Reduction Potential	-69.9				mV			04/23/24 11:05	1
Oxygen, Dissolved	0.26				mg/L			04/23/24 11:05	1
Field pH	7.16				SU			04/23/24 11:05	1
Field Conductivity	1672				umhos/cm			04/23/24 11:05	1
Field Temperature	12.2				Degrees C			04/23/24 11:05	1
Field Turbidity	8.40				NTU			04/23/24 11:05	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-309
 Date Collected: 04/25/24 09:35
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-12
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29		5.0	2.3	mg/L			05/03/24 16:14	5
Fluoride	<0.38		1.0	0.38	mg/L			05/03/24 16:14	5
Sulfate	120		5.0	2.1	mg/L			05/03/24 16:14	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 21:10	1
Arsenic	21		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 21:10	1
Barium	130		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 21:10	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 21:10	1
Boron	12000		400	300	ug/L		04/30/24 09:00	05/02/24 22:38	4
Cadmium	<0.10		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 21:10	1
Calcium	84		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 21:10	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 21:10	1
Cobalt	0.17 J		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 21:10	1
Iron	20000		100	36	ug/L		04/30/24 09:00	05/01/24 21:10	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 21:10	1
Lithium	4.8 J		10	2.5	ug/L		04/30/24 09:00	05/01/24 21:10	1
Molybdenum	44		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 21:10	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 21:10	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 21:10	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:18	05/08/24 11:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	530		50	42	mg/L			04/29/24 15:17	1
pH (SM 4500 H+ B)	7.1	HF	1.0	1.0	SU			04/26/24 17:25	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.217		0.114	0.115	1.00	0.128	pCi/L	05/01/24 08:34	05/26/24 13:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	80.2		30 - 110					05/01/24 08:34	05/26/24 13:15	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.304	U	0.368	0.369	1.00	0.607	pCi/L	05/01/24 08:40	05/22/24 11:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	80.2		30 - 110					05/01/24 08:40	05/22/24 11:48	1
Y Carrier	75.1		30 - 110					05/01/24 08:40	05/22/24 11:48	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-309
 Date Collected: 04/25/24 09:35
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-12
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.521	U	0.385	0.387	5.00	0.607	pCi/L		05/28/24 10:46	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	521.18				ft			04/25/24 09:35	1
Oxidation Reduction Potential	-118.3				mV			04/25/24 09:35	1
Oxygen, Dissolved	0.20				mg/L			04/25/24 09:35	1
Field pH	6.88				SU			04/25/24 09:35	1
Field Conductivity	908				umhos/cm			04/25/24 09:35	1
Field Temperature	13.4				Degrees C			04/25/24 09:35	1
Field Turbidity	22.15				NTU			04/25/24 09:35	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-310
 Date Collected: 04/23/24 09:50
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-13
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16		5.0	2.3	mg/L			04/30/24 15:22	5
Fluoride	<0.38		1.0	0.38	mg/L			04/30/24 15:22	5
Sulfate	130		5.0	2.1	mg/L			04/30/24 15:22	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 21:12	1
Arsenic	24		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 21:12	1
Barium	240		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 21:12	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 21:12	1
Boron	330		100	76	ug/L		04/30/24 09:00	05/01/24 21:12	1
Cadmium	<0.10		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 21:12	1
Calcium	99		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 21:12	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 21:12	1
Cobalt	1.6		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 21:12	1
Iron	15000		100	36	ug/L		04/30/24 09:00	05/01/24 21:12	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 21:12	1
Lithium	<2.5		10	2.5	ug/L		04/30/24 09:00	05/01/24 21:12	1
Molybdenum	3.0		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 21:12	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 21:12	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 21:12	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:18	05/08/24 11:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	430		50	42	mg/L			04/27/24 11:29	1
pH (SM 4500 H+ B)	7.2	HF	1.0	1.0	SU			04/26/24 17:26	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.317		0.129	0.132	1.00	0.137	pCi/L	05/01/24 08:34	05/26/24 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	91.4		30 - 110					05/01/24 08:34	05/26/24 13:31	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	-0.154	U	0.357	0.357	1.00	0.721	pCi/L	05/01/24 08:40	05/22/24 11:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	91.4		30 - 110					05/01/24 08:40	05/22/24 11:48	1
Y Carrier	58.7		30 - 110					05/01/24 08:40	05/22/24 11:48	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-310
 Date Collected: 04/23/24 09:50
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-13
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.317	U	0.380	0.381	5.00	0.721	pCi/L		05/28/24 10:46	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	523.93				ft			04/23/24 09:50	1
Oxidation Reduction Potential	-141.7				mV			04/23/24 09:50	1
Oxygen, Dissolved	0.24				mg/L			04/23/24 09:50	1
Field pH	7.09				SU			04/23/24 09:50	1
Field Conductivity	747				umhos/cm			04/23/24 09:50	1
Field Temperature	9.3				Degrees C			04/23/24 09:50	1
Field Turbidity	16.10				NTU			04/23/24 09:50	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-310A
 Date Collected: 04/25/24 11:05
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-14
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.3		5.0	2.3	mg/L			05/03/24 16:52	5
Fluoride	0.38	J	1.0	0.38	mg/L			05/03/24 16:52	5
Sulfate	74		5.0	2.1	mg/L			05/03/24 16:52	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 21:14	1
Arsenic	1.7	J	2.0	0.53	ug/L		04/30/24 09:00	05/01/24 21:14	1
Barium	52		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 21:14	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 21:14	1
Boron	930		100	76	ug/L		04/30/24 09:00	05/01/24 21:14	1
Cadmium	<0.10		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 21:14	1
Calcium	49		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 21:14	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 21:14	1
Cobalt	0.67		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 21:14	1
Iron	270		100	36	ug/L		04/30/24 09:00	05/01/24 21:14	1
Lead	0.51		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 21:14	1
Lithium	41		10	2.5	ug/L		04/30/24 09:00	05/01/24 21:14	1
Molybdenum	7.5		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 21:14	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 21:14	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 21:14	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:09	05/06/24 13:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	550		50	42	mg/L			04/29/24 15:17	1
pH (SM 4500 H+ B)	7.7	HF	1.0	1.0	SU			04/26/24 17:27	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.427		0.172	0.176	1.00	0.181	pCi/L	05/01/24 08:34	05/26/24 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	93.9		30 - 110					05/01/24 08:34	05/26/24 13:31	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.701	U	0.516	0.520	1.00	0.782	pCi/L	05/01/24 08:40	05/22/24 12:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	93.9		30 - 110					05/01/24 08:40	05/22/24 12:05	1
Y Carrier	73.3		30 - 110					05/01/24 08:40	05/22/24 12:05	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-310A
 Date Collected: 04/25/24 11:05
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-14
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.13		0.544	0.549	5.00	0.782	pCi/L		05/28/24 10:46	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	521.84				ft			04/25/24 11:05	1
Oxidation Reduction Potential	35.4				mV			04/25/24 11:05	1
Oxygen, Dissolved	4.09				mg/L			04/25/24 11:05	1
Field pH	6.90				SU			04/25/24 11:05	1
Field Conductivity	1173				umhos/cm			04/25/24 11:05	1
Field Temperature	11.9				Degrees C			04/25/24 11:05	1
Field Turbidity	37.08				NTU			04/25/24 11:05	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-311
 Date Collected: 04/25/24 11:45
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-15
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47		5.0	2.3	mg/L			05/03/24 17:04	5
Fluoride	<0.38		1.0	0.38	mg/L			05/03/24 17:04	5
Sulfate	250		5.0	2.1	mg/L			05/03/24 17:04	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 21:17	1
Arsenic	6.3		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 21:17	1
Barium	98		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 21:17	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 21:17	1
Boron	1400		100	76	ug/L		04/30/24 09:00	05/01/24 21:17	1
Cadmium	<0.10		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 21:17	1
Calcium	180		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 21:17	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 21:17	1
Cobalt	3.4		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 21:17	1
Iron	16000		100	36	ug/L		04/30/24 09:00	05/01/24 21:17	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 21:17	1
Lithium	2.8 J		10	2.5	ug/L		04/30/24 09:00	05/01/24 21:17	1
Molybdenum	4.7		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 21:17	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 21:17	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 21:17	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:09	05/06/24 13:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	790		50	42	mg/L			04/29/24 15:17	1
pH (SM 4500 H+ B)	7.1	HF	1.0	1.0	SU			04/26/24 17:29	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0549	U	0.0900	0.0901	1.00	0.157	pCi/L	05/01/24 08:34	05/26/24 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	85.0		30 - 110					05/01/24 08:34	05/26/24 13:31	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.630	U	0.456	0.460	1.00	0.695	pCi/L	05/01/24 08:40	05/22/24 12:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	85.0		30 - 110					05/01/24 08:40	05/22/24 12:05	1
Y Carrier	72.5		30 - 110					05/01/24 08:40	05/22/24 12:05	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-311
Date Collected: 04/25/24 11:45
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-15
Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.685	U	0.465	0.469	5.00	0.695	pCi/L		05/28/24 10:46	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	522.23				ft			04/25/24 11:45	1
Oxidation Reduction Potential	-87.6				mV			04/25/24 11:45	1
Oxygen, Dissolved	0.19				mg/L			04/25/24 11:45	1
Field pH	6.76				SU			04/25/24 11:45	1
Field Conductivity	1279				umhos/cm			04/25/24 11:45	1
Field Temperature	11.3				Degrees C			04/25/24 11:45	1
Field Turbidity	13.18				NTU			04/25/24 11:45	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-312
 Date Collected: 04/23/24 13:10
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-16
 Matrix: Water

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	16000		100	36	ug/L		04/30/24 09:00	05/01/24 21:19	1
Lithium	19		10	2.5	ug/L		04/30/24 09:00	05/01/24 21:19	1
Molybdenum	31		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 21:19	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.93				ft			04/23/24 13:10	1
Oxidation Reduction Potential	-100.0				mV			04/23/24 13:10	1
Oxygen, Dissolved	0.25				mg/L			04/23/24 13:10	1
Field pH	6.90				SU			04/23/24 13:10	1
Field Conductivity	778				umhos/cm			04/23/24 13:10	1
Field Temperature	10.8				Degrees C			04/23/24 13:10	1
Field Turbidity	13.65				NTU			04/23/24 13:10	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-313
 Date Collected: 04/24/24 16:35
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-17
 Matrix: Water

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	9300		100	36	ug/L		04/30/24 09:00	05/01/24 21:21	1
Lithium	15		10	2.5	ug/L		04/30/24 09:00	05/01/24 21:21	1
Magnesium	12000		500	150	ug/L		04/30/24 09:00	05/01/24 21:21	1
Manganese	4600		10	3.6	ug/L		04/30/24 09:00	05/01/24 21:21	1
Molybdenum	51		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 21:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	310		5.0	2.5	mg/L			05/08/24 12:00	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<2.5		5.0	2.5	mg/L			05/08/24 12:00	1
Total Alkalinity as CaCO3 (SM 2320B)	310		5.0	2.5	mg/L			05/08/24 12:00	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.87				ft			04/24/24 16:35	1
Oxidation Reduction Potential	-112.7				mV			04/24/24 16:35	1
Oxygen, Dissolved	0.23				mg/L			04/24/24 16:35	1
Field pH	7.05				SU			04/24/24 16:35	1
Field Conductivity	679				umhos/cm			04/24/24 16:35	1
Field Temperature	9.8				Degrees C			04/24/24 16:35	1
Field Turbidity	24.48				NTU			04/24/24 16:35	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-313A
 Date Collected: 04/25/24 08:20
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-18
 Matrix: Water

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1900		100	36	ug/L		04/30/24 09:00	05/01/24 21:23	1
Lithium	5.6	J	10	2.5	ug/L		04/30/24 09:00	05/01/24 21:23	1
Molybdenum	5.2		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 21:23	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.87				ft			04/25/24 08:20	1
Oxidation Reduction Potential	-119.3				mV			04/25/24 08:20	1
Oxygen, Dissolved	0.27				mg/L			04/25/24 08:20	1
Field pH	7.43				SU			04/25/24 08:20	1
Field Conductivity	438.1				umhos/cm			04/25/24 08:20	1
Field Temperature	8.0				Degrees C			04/25/24 08:20	1
Field Turbidity	10.93				NTU			04/25/24 08:20	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-313B
 Date Collected: 04/25/24 08:55
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-19
 Matrix: Water

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2100		100	36	ug/L		04/30/24 09:00	05/01/24 21:25	1
Lithium	6.6	J	10	2.5	ug/L		04/30/24 09:00	05/01/24 21:25	1
Molybdenum	13		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 21:25	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.92				ft			04/25/24 08:55	1
Oxidation Reduction Potential	-94.7				mV			04/25/24 08:55	1
Oxygen, Dissolved	0.29				mg/L			04/25/24 08:55	1
Field pH	7.30				SU			04/25/24 08:55	1
Field Conductivity	483.1				umhos/cm			04/25/24 08:55	1
Field Temperature	8.6				Degrees C			04/25/24 08:55	1
Field Turbidity	11.59				NTU			04/25/24 08:55	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-314
 Date Collected: 04/25/24 10:35
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-20
 Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		5.0	2.3	mg/L			05/03/24 17:17	5
Fluoride	<0.38		1.0	0.38	mg/L			05/03/24 17:17	5
Sulfate	93		5.0	2.1	mg/L			05/03/24 17:17	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 17:35	1
Arsenic	3.9		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 17:35	1
Barium	290	F1	2.0	0.66	ug/L		04/30/24 09:00	05/01/24 17:35	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 17:35	1
Boron	130		100	76	ug/L		04/30/24 09:00	05/01/24 17:35	1
Cadmium	<0.10		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 17:35	1
Calcium	160		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 17:35	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 17:35	1
Cobalt	0.59		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 17:35	1
Iron	15000		100	36	ug/L		04/30/24 09:00	05/01/24 17:35	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 17:35	1
Lithium	4.4	J	10	2.5	ug/L		04/30/24 09:00	05/01/24 17:35	1
Molybdenum	1.7	J	2.0	1.3	ug/L		04/30/24 09:00	05/01/24 17:35	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 17:35	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 17:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:09	05/06/24 13:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	650		50	42	mg/L			04/29/24 15:17	1
pH (SM 4500 H+ B)	6.9	HF	1.0	1.0	SU			04/26/24 17:30	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.312		0.131	0.134	1.00	0.153	pCi/L	05/01/24 08:34	05/26/24 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	103		30 - 110					05/01/24 08:34	05/26/24 13:31	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.611		0.353	0.357	1.00	0.505	pCi/L	05/01/24 08:40	05/22/24 12:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	103		30 - 110					05/01/24 08:40	05/22/24 12:05	1
Y Carrier	76.6		30 - 110					05/01/24 08:40	05/22/24 12:05	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-314
 Date Collected: 04/25/24 10:35
 Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-20
 Matrix: Water

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.923		0.377	0.381	5.00	0.505	pCi/L		05/28/24 08:52	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.95				ft			04/25/24 10:35	1
Oxidation Reduction Potential	-72.1				mV			04/25/24 10:35	1
Oxygen, Dissolved	0.38				mg/L			04/25/24 10:35	1
Field pH	6.64				SU			04/25/24 10:35	1
Field Conductivity	1148				umhos/cm			04/25/24 10:35	1
Field Temperature	11.7				Degrees C			04/25/24 10:35	1
Field Turbidity	12.56				NTU			04/25/24 10:35	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: Field Blank

Lab Sample ID: 310-279943-21

Date Collected: 04/25/24 10:30

Matrix: Water

Date Received: 04/26/24 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.45		1.0	0.45	mg/L			05/03/24 17:30	1
Fluoride	<0.075		0.20	0.075	mg/L			05/03/24 17:30	1
Sulfate	<0.42		1.0	0.42	mg/L			05/03/24 17:30	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 17:45	1
Arsenic	<0.53		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 17:45	1
Barium	<0.66		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 17:45	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 17:45	1
Boron	<76		100	76	ug/L		04/30/24 09:00	05/01/24 17:45	1
Cadmium	<0.10		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 17:45	1
Calcium	<0.19		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 17:45	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 17:45	1
Cobalt	<0.17		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 17:45	1
Iron	<36		100	36	ug/L		04/30/24 09:00	05/01/24 17:45	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 17:45	1
Lithium	<2.5		10	2.5	ug/L		04/30/24 09:00	05/01/24 17:45	1
Molybdenum	<1.3		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 17:45	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 17:45	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 17:45	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:09	05/06/24 13:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	<42		50	42	mg/L			04/29/24 15:17	1
pH (SM 4500 H+ B)	6.6	HF	1.0	1.0	SU			04/26/24 17:33	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium 226	0.000	U	0.0792	0.0792	1.00	0.161	pCi/L	05/01/24 08:34	05/26/24 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	89.8		30 - 110					05/01/24 08:34	05/26/24 13:31	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium 228	0.392	U	0.383	0.384	1.00	0.613	pCi/L	05/01/24 08:40	05/22/24 12:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	89.8		30 - 110					05/01/24 08:40	05/22/24 12:05	1
Y Carrier	76.3		30 - 110					05/01/24 08:40	05/22/24 12:05	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
SDG: 25224066

Client Sample ID: Field Blank

Lab Sample ID: 310-279943-21

Date Collected: 04/25/24 10:30

Matrix: Water

Date Received: 04/26/24 16:00

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.392	U	0.391	0.392	5.00	0.613	pCi/L		05/28/24 10:46	1

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Definitions/Glossary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-420317/3
Matrix: Water
Analysis Batch: 420317

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.45		1.0	0.45	mg/L			04/30/24 10:15	1
Fluoride	<0.075		0.20	0.075	mg/L			04/30/24 10:15	1
Sulfate	<0.42		1.0	0.42	mg/L			04/30/24 10:15	1

Lab Sample ID: LCS 310-420317/4
Matrix: Water
Analysis Batch: 420317

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	2.17		mg/L		109	90 - 110
Sulfate	10.0	10.6		mg/L		106	90 - 110

Lab Sample ID: MB 310-420905/3
Matrix: Water
Analysis Batch: 420905

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.45		1.0	0.45	mg/L			05/03/24 15:49	1
Fluoride	<0.075		0.20	0.075	mg/L			05/03/24 15:49	1
Sulfate	<0.42		1.0	0.42	mg/L			05/03/24 15:49	1

Lab Sample ID: LCS 310-420905/4
Matrix: Water
Analysis Batch: 420905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	2.15		mg/L		108	90 - 110
Sulfate	10.0	10.6		mg/L		106	90 - 110

Lab Sample ID: 310-279943-12 MS
Matrix: Water
Analysis Batch: 420905

Client Sample ID: MW-309
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	<0.38		5.00	5.46		mg/L		109	80 - 120
Sulfate	120		25.0	141	4	mg/L		90	80 - 120

Lab Sample ID: 310-279943-12 MSD
Matrix: Water
Analysis Batch: 420905

Client Sample ID: MW-309
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	<0.38		5.00	5.54		mg/L		111	80 - 120	2	15
Sulfate	120		25.0	141	4	mg/L		88	80 - 120	0	15

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-420155/1-A
Matrix: Water
Analysis Batch: 420438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420155

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 20:14	1
Arsenic	<0.53		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 20:14	1
Barium	<0.66		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 20:14	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 20:14	1
Boron	<76		100	76	ug/L		04/30/24 09:00	05/01/24 20:14	1
Cadmium	<0.10		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 20:14	1
Calcium	<0.19		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 20:14	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 20:14	1
Cobalt	<0.17		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 20:14	1
Iron	<36		100	36	ug/L		04/30/24 09:00	05/01/24 20:14	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 20:14	1
Lithium	<2.5		10	2.5	ug/L		04/30/24 09:00	05/01/24 20:14	1
Molybdenum	<1.3		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 20:14	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 20:14	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 20:14	1

Lab Sample ID: LCS 310-420155/2-A
Matrix: Water
Analysis Batch: 420438

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420155

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	200	219		ug/L		109	80 - 120
Arsenic	200	213		ug/L		106	80 - 120
Barium	100	107		ug/L		107	80 - 120
Beryllium	100	106		ug/L		106	80 - 120
Boron	200	208		ug/L		104	80 - 120
Cadmium	100	104		ug/L		104	80 - 120
Calcium	2.00	1.96		mg/L		98	80 - 120
Chromium	100	104		ug/L		104	80 - 120
Cobalt	100	118		ug/L		118	80 - 120
Iron	200	226		ug/L		113	80 - 120
Lead	200	217		ug/L		109	80 - 120
Lithium	200	227		ug/L		114	80 - 120
Molybdenum	200	209		ug/L		105	80 - 120
Selenium	400	403		ug/L		101	80 - 120
Thallium	100	114		ug/L		114	80 - 120

Lab Sample ID: 310-279943-1 MS
Matrix: Water
Analysis Batch: 420438

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 420155

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<1.0		200	232		ug/L		116	75 - 125
Arsenic	7.1		200	229		ug/L		111	75 - 125
Barium	38		100	150		ug/L		112	75 - 125
Beryllium	<0.33		100	112		ug/L		112	75 - 125
Cadmium	<0.10		100	101		ug/L		101	75 - 125
Calcium	180		2.00	185	4	mg/L		173	75 - 125
Chromium	<1.2		100	102		ug/L		102	75 - 125

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-279943-1 MS
Matrix: Water
Analysis Batch: 420438

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 420155

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Cobalt	10		100	126		ug/L		116	75 - 125	
Iron	18000		200	18800	4	ug/L		222	75 - 125	
Lead	<0.26		200	224		ug/L		112	75 - 125	
Lithium	14		200	246		ug/L		116	75 - 125	
Molybdenum	64	F1	200	323	F1	ug/L		130	75 - 125	
Selenium	<1.4		400	419		ug/L		105	75 - 125	
Thallium	<0.57		100	112		ug/L		112	75 - 125	

Lab Sample ID: 310-279943-1 MS
Matrix: Water
Analysis Batch: 420587

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 420155

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Manganese	18000		100	18100	4	ug/L		99	75 - 125	
Boron	5600		200	5920	4	ug/L		156	75 - 125	

Lab Sample ID: 310-279943-1 MSD
Matrix: Water
Analysis Batch: 420438

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 420155

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Antimony	<1.0		200	230		ug/L		115	75 - 125		1	20
Arsenic	7.1		200	227		ug/L		110	75 - 125		1	20
Barium	38		100	148		ug/L		110	75 - 125		1	20
Beryllium	<0.33		100	112		ug/L		112	75 - 125		0	20
Cadmium	<0.10		100	101		ug/L		101	75 - 125		1	20
Calcium	180		2.00	179	4	mg/L		-111	75 - 125		3	20
Chromium	<1.2		100	100		ug/L		100	75 - 125		2	20
Cobalt	10		100	126		ug/L		116	75 - 125		0	20
Iron	18000		200	18200	4	ug/L		-80	75 - 125		3	20
Lead	<0.26		200	221		ug/L		110	75 - 125		1	20
Lithium	14		200	243		ug/L		114	75 - 125		1	20
Molybdenum	64	F1	200	318	F1	ug/L		127	75 - 125		2	20
Selenium	<1.4		400	413		ug/L		103	75 - 125		2	20
Thallium	<0.57		100	111		ug/L		111	75 - 125		1	20

Lab Sample ID: 310-279943-1 MSD
Matrix: Water
Analysis Batch: 420587

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 420155

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Manganese	18000		100	17600	4	ug/L		-395	75 - 125		3	20
Boron	5600		200	5780	4	ug/L		86	75 - 125		2	20

Lab Sample ID: 310-279943-11 DU
Matrix: Water
Analysis Batch: 420438

Client Sample ID: MW-308
Prep Type: Total/NA
Prep Batch: 420155

Analyte	Sample	Sample	DU		Unit	D	RPD	RPD	
	Result	Qualifier	Result	Qualifier				Limit	
Antimony	<1.0		<1.0		ug/L		NC	20	

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-279943-11 DU
Matrix: Water
Analysis Batch: 420438

Client Sample ID: MW-308
Prep Type: Total/NA
Prep Batch: 420155

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Arsenic	5.3		5.20		ug/L		2	20
Barium	75		72.9		ug/L		2	20
Beryllium	<0.33		<0.33		ug/L		NC	20
Cadmium	0.17	J	0.168	J	ug/L		4	20
Calcium	150		146		mg/L		4	20
Chromium	<1.2		<1.2		ug/L		NC	20
Cobalt	1.4		1.32		ug/L		6	20
Iron	2200		2150		ug/L		4	20
Lead	<0.26		<0.26		ug/L		NC	20
Lithium	240		229		ug/L		4	20
Molybdenum	560		544		ug/L		2	20
Selenium	<1.4		<1.4		ug/L		NC	20
Thallium	<0.57		<0.57		ug/L		NC	20

Lab Sample ID: 310-279943-11 DU
Matrix: Water
Analysis Batch: 420587

Client Sample ID: MW-308
Prep Type: Total/NA
Prep Batch: 420155

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Manganese	24000		23500		ug/L		2	20
Boron	5700		5470		ug/L		4	20

Lab Sample ID: MB 310-420157/1-A
Matrix: Water
Analysis Batch: 420438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420157

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<1.0		2.0	1.0	ug/L		04/30/24 09:00	05/01/24 17:31	1
Arsenic	<0.53		2.0	0.53	ug/L		04/30/24 09:00	05/01/24 17:31	1
Barium	<0.66		2.0	0.66	ug/L		04/30/24 09:00	05/01/24 17:31	1
Beryllium	<0.33		1.0	0.33	ug/L		04/30/24 09:00	05/01/24 17:31	1
Boron	<76		100	76	ug/L		04/30/24 09:00	05/01/24 17:31	1
Cadmium	<0.10		0.20	0.10	ug/L		04/30/24 09:00	05/01/24 17:31	1
Calcium	<0.19		0.50	0.19	mg/L		04/30/24 09:00	05/01/24 17:31	1
Chromium	<1.2		5.0	1.2	ug/L		04/30/24 09:00	05/01/24 17:31	1
Cobalt	<0.17		0.50	0.17	ug/L		04/30/24 09:00	05/01/24 17:31	1
Iron	<36		100	36	ug/L		04/30/24 09:00	05/01/24 17:31	1
Lead	<0.26		0.50	0.26	ug/L		04/30/24 09:00	05/01/24 17:31	1
Lithium	<2.5		10	2.5	ug/L		04/30/24 09:00	05/01/24 17:31	1
Molybdenum	<1.3		2.0	1.3	ug/L		04/30/24 09:00	05/01/24 17:31	1
Selenium	<1.4		5.0	1.4	ug/L		04/30/24 09:00	05/01/24 17:31	1
Thallium	<0.57		1.0	0.57	ug/L		04/30/24 09:00	05/01/24 17:31	1

Lab Sample ID: LCS 310-420157/2-A
Matrix: Water
Analysis Batch: 420438

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-420157/2-A
Matrix: Water
Analysis Batch: 420438

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	200	211		ug/L		106	80 - 120
Barium	100	104		ug/L		104	80 - 120
Beryllium	100	104		ug/L		104	80 - 120
Boron	200	177		ug/L		89	80 - 120
Cadmium	100	103		ug/L		103	80 - 120
Calcium	2.00	1.88		mg/L		94	80 - 120
Chromium	100	105		ug/L		105	80 - 120
Cobalt	100	117		ug/L		117	80 - 120
Iron	200	222		ug/L		111	80 - 120
Lead	200	214		ug/L		107	80 - 120
Lithium	200	220		ug/L		110	80 - 120
Molybdenum	200	204		ug/L		102	80 - 120
Selenium	400	400		ug/L		100	80 - 120
Thallium	100	112		ug/L		112	80 - 120

Lab Sample ID: 310-279943-20 MS
Matrix: Water
Analysis Batch: 420438

Client Sample ID: MW-314
Prep Type: Total/NA
Prep Batch: 420157

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<1.0		200	224		ug/L		112	75 - 125
Arsenic	3.9		200	219		ug/L		108	75 - 125
Barium	290	F1	100	456	F1	ug/L		164	75 - 125
Beryllium	<0.33		100	110		ug/L		110	75 - 125
Boron	130		200	337		ug/L		105	75 - 125
Cadmium	<0.10		100	103		ug/L		103	75 - 125
Calcium	160		2.00	164	4	mg/L		224	75 - 125
Chromium	<1.2		100	101		ug/L		101	75 - 125
Cobalt	0.59		100	115		ug/L		114	75 - 125
Iron	15000		200	15700	4	ug/L		310	75 - 125
Lead	<0.26		200	219		ug/L		109	75 - 125
Lithium	4.4	J	200	228		ug/L		112	75 - 125
Molybdenum	1.7	J	200	231		ug/L		114	75 - 125
Selenium	<1.4		400	411		ug/L		103	75 - 125
Thallium	<0.57		100	111		ug/L		111	75 - 125

Lab Sample ID: 310-279943-20 MSD
Matrix: Water
Analysis Batch: 420438

Client Sample ID: MW-314
Prep Type: Total/NA
Prep Batch: 420157

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<1.0		200	223		ug/L		112	75 - 125	0	20
Arsenic	3.9		200	218		ug/L		107	75 - 125	1	20
Barium	290	F1	100	448	F1	ug/L		155	75 - 125	2	20
Beryllium	<0.33		100	111		ug/L		111	75 - 125	0	20
Boron	130		200	335		ug/L		104	75 - 125	1	20
Cadmium	<0.10		100	103		ug/L		103	75 - 125	0	20
Calcium	160		2.00	159	4	mg/L		14	75 - 125	3	20
Chromium	<1.2		100	102		ug/L		102	75 - 125	1	20

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-279943-20 MSD
Matrix: Water
Analysis Batch: 420438

Client Sample ID: MW-314
Prep Type: Total/NA
Prep Batch: 420157

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Cobalt	0.59		100	116		ug/L		115	75 - 125	1	20
Iron	15000		200	15300	4	ug/L		144	75 - 125	2	20
Lead	<0.26		200	217		ug/L		108	75 - 125	1	20
Lithium	4.4	J	200	228		ug/L		112	75 - 125	0	20
Molybdenum	1.7	J	200	217		ug/L		108	75 - 125	6	20
Selenium	<1.4		400	407		ug/L		102	75 - 125	1	20
Thallium	<0.57		100	109		ug/L		109	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-420542/1-A
Matrix: Water
Analysis Batch: 420788

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420542

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:09	05/06/24 13:14	1

Lab Sample ID: LCS 310-420542/2-A
Matrix: Water
Analysis Batch: 420788

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420542

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Mercury	1.67	1.80		ug/L		108	80 - 120

Lab Sample ID: 310-279943-14 MS
Matrix: Water
Analysis Batch: 420788

Client Sample ID: MW-310A
Prep Type: Total/NA
Prep Batch: 420542

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier		Result	Qualifier				Limits
Mercury	<0.11		1.67	1.84		ug/L		110	80 - 120

Lab Sample ID: 310-279943-14 MSD
Matrix: Water
Analysis Batch: 420788

Client Sample ID: MW-310A
Prep Type: Total/NA
Prep Batch: 420542

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Mercury	<0.11		1.67	1.86		ug/L		112	80 - 120	1	20

Lab Sample ID: 310-279943-5 DU
Matrix: Water
Analysis Batch: 420788

Client Sample ID: MW-304
Prep Type: Total/NA
Prep Batch: 420542

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier		Result				
Mercury	<0.11		<0.11		ug/L		NC	20

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 310-420545/1-A
Matrix: Water
Analysis Batch: 421070

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420545

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		05/02/24 15:18	05/08/24 11:16	1

Lab Sample ID: LCS 310-420545/2-A
Matrix: Water
Analysis Batch: 421070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420545

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.67	1.87		ug/L		112	80 - 120

Lab Sample ID: 310-279943-2 MS
Matrix: Water
Analysis Batch: 421070

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 420545

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.11	F1	1.67	1.37		ug/L		82	80 - 120

Lab Sample ID: 310-279943-2 MSD
Matrix: Water
Analysis Batch: 421070

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 420545

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.11	F1	1.67	1.27	F1	ug/L		76	80 - 120	8	20

Method: SM 2320B - Alkalinity

Lab Sample ID: LCS 310-421050/2
Matrix: Water
Analysis Batch: 421050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3	1000	899		mg/L		90	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-420050/1
Matrix: Water
Analysis Batch: 420050

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<42		50	42	mg/L			04/27/24 11:12	1

Lab Sample ID: LCS 310-420050/2
Matrix: Water
Analysis Batch: 420050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	988		mg/L		99	90 - 110

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 310-420051/1
Matrix: Water
Analysis Batch: 420051

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<42		50	42	mg/L			04/27/24 11:29	1

Lab Sample ID: LCS 310-420051/2
Matrix: Water
Analysis Batch: 420051

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	986		mg/L		99	90 - 110

Lab Sample ID: MB 310-420152/1
Matrix: Water
Analysis Batch: 420152

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<42		50	42	mg/L			04/29/24 15:17	1

Lab Sample ID: LCS 310-420152/2
Matrix: Water
Analysis Batch: 420152

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	962		mg/L		96	90 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-420025/1
Matrix: Water
Analysis Batch: 420025

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	98 - 102

Lab Sample ID: LCS 310-420025/28
Matrix: Water
Analysis Batch: 420025

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.1		SU		101	98 - 102

Lab Sample ID: 310-279943-5 DU
Matrix: Water
Analysis Batch: 420025

Client Sample ID: MW-304
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	6.9	HF	6.9		SU		0.7	20

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: 310-279943-21 DU
 Matrix: Water
 Analysis Batch: 420025

Client Sample ID: Field Blank
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	6.6	HF	6.3		SU		4	20

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-659460/1-A
 Matrix: Water
 Analysis Batch: 663393

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 659460

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	-0.02407	U	0.0462	0.0462	1.00	0.120	pCi/L	05/01/24 08:34	05/26/24 13:11	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	93.1		30 - 110					05/01/24 08:34	05/26/24 13:11	1

Lab Sample ID: LCS 160-659460/2-A
 Matrix: Water
 Analysis Batch: 663393

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 659460

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium 226	11.3	11.14		1.20	1.00	0.174	pCi/L	98	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Barium	93.1		30 - 110						

Lab Sample ID: 310-279943-2 DU
 Matrix: Water
 Analysis Batch: 663393

Client Sample ID: MW-302
 Prep Type: Total/NA
 Prep Batch: 659460

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium 226	0.120	U	0.06925	U	0.0732	1.00	0.113	pCi/L	0.31	1
Carrier	DU %Yield	DU Qualifier	Limits							
Barium	88.1		30 - 110							

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-659461/1-A
 Matrix: Water
 Analysis Batch: 662959

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 659461

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.08631	U	0.339	0.339	1.00	0.607	pCi/L	05/01/24 08:40	05/22/24 11:47	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-659461/1-A
Matrix: Water
Analysis Batch: 662959

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 659461

Carrier	MB MB		Limits
	%Yield	Qualifier	
Barium	93.1		30 - 110
Y Carrier	78.1		30 - 110

Prepared	Analyzed	Dil Fac
05/01/24 08:40	05/22/24 11:47	1
05/01/24 08:40	05/22/24 11:47	1

Lab Sample ID: LCS 160-659461/2-A
Matrix: Water
Analysis Batch: 662959

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 659461

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	
Radium 228	8.92	9.937		1.34	1.00	0.478	pCi/L	111	75 - 125	

Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Barium	93.1		30 - 110
Y Carrier	78.1		30 - 110

Lab Sample ID: 310-279943-2 DU
Matrix: Water
Analysis Batch: 662959

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 659461

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
										1
Radium 228	0.677		0.6654		0.390	1.00	0.546	pCi/L	0.01	1

Carrier	DU DU		Limits
	%Yield	Qualifier	
Barium	88.1		30 - 110
Y Carrier	74.4		30 - 110

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
SDG: 25224066

HPLC/IC

Analysis Batch: 420317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-1	MW-301	Total/NA	Water	9056A	
310-279943-1	MW-301	Total/NA	Water	9056A	
310-279943-2	MW-302	Total/NA	Water	9056A	
310-279943-4	MW-303	Total/NA	Water	9056A	
310-279943-5	MW-304	Total/NA	Water	9056A	
310-279943-6	MW-305	Total/NA	Water	9056A	
310-279943-7	MW-306	Total/NA	Water	9056A	
310-279943-8	MW-307	Total/NA	Water	9056A	
310-279943-11	MW-308	Total/NA	Water	9056A	
310-279943-11	MW-308	Total/NA	Water	9056A	
310-279943-13	MW-310	Total/NA	Water	9056A	
MB 310-420317/3	Method Blank	Total/NA	Water	9056A	
LCS 310-420317/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 420905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-12	MW-309	Total/NA	Water	9056A	
310-279943-14	MW-310A	Total/NA	Water	9056A	
310-279943-15	MW-311	Total/NA	Water	9056A	
310-279943-20	MW-314	Total/NA	Water	9056A	
310-279943-21	Field Blank	Total/NA	Water	9056A	
MB 310-420905/3	Method Blank	Total/NA	Water	9056A	
LCS 310-420905/4	Lab Control Sample	Total/NA	Water	9056A	
310-279943-12 MS	MW-309	Total/NA	Water	9056A	
310-279943-12 MSD	MW-309	Total/NA	Water	9056A	

Metals

Prep Batch: 420155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-1	MW-301	Total/NA	Water	3005A	
310-279943-2	MW-302	Total/NA	Water	3005A	
310-279943-3	MW-302A	Total/NA	Water	3005A	
310-279943-4	MW-303	Total/NA	Water	3005A	
310-279943-5	MW-304	Total/NA	Water	3005A	
310-279943-6	MW-305	Total/NA	Water	3005A	
310-279943-7	MW-306	Total/NA	Water	3005A	
310-279943-8	MW-307	Total/NA	Water	3005A	
310-279943-9	MW-307A	Total/NA	Water	3005A	
310-279943-10	MW-307B	Total/NA	Water	3005A	
310-279943-11	MW-308	Total/NA	Water	3005A	
310-279943-12	MW-309	Total/NA	Water	3005A	
310-279943-13	MW-310	Total/NA	Water	3005A	
310-279943-14	MW-310A	Total/NA	Water	3005A	
310-279943-15	MW-311	Total/NA	Water	3005A	
310-279943-16	MW-312	Total/NA	Water	3005A	
310-279943-17	MW-313	Total/NA	Water	3005A	
310-279943-18	MW-313A	Total/NA	Water	3005A	
310-279943-19	MW-313B	Total/NA	Water	3005A	
MB 310-420155/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-420155/2-A	Lab Control Sample	Total/NA	Water	3005A	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
SDG: 25224066

Metals (Continued)

Prep Batch: 420155 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-1 MS	MW-301	Total/NA	Water	3005A	
310-279943-1 MSD	MW-301	Total/NA	Water	3005A	
310-279943-11 DU	MW-308	Total/NA	Water	3005A	

Prep Batch: 420157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-20	MW-314	Total/NA	Water	3005A	
310-279943-21	Field Blank	Total/NA	Water	3005A	
MB 310-420157/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-420157/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-279943-20 MS	MW-314	Total/NA	Water	3005A	
310-279943-20 MSD	MW-314	Total/NA	Water	3005A	

Analysis Batch: 420438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-1	MW-301	Total/NA	Water	6020B	420155
310-279943-2	MW-302	Total/NA	Water	6020B	420155
310-279943-3	MW-302A	Total/NA	Water	6020B	420155
310-279943-4	MW-303	Total/NA	Water	6020B	420155
310-279943-5	MW-304	Total/NA	Water	6020B	420155
310-279943-6	MW-305	Total/NA	Water	6020B	420155
310-279943-7	MW-306	Total/NA	Water	6020B	420155
310-279943-8	MW-307	Total/NA	Water	6020B	420155
310-279943-9	MW-307A	Total/NA	Water	6020B	420155
310-279943-10	MW-307B	Total/NA	Water	6020B	420155
310-279943-11	MW-308	Total/NA	Water	6020B	420155
310-279943-12	MW-309	Total/NA	Water	6020B	420155
310-279943-13	MW-310	Total/NA	Water	6020B	420155
310-279943-14	MW-310A	Total/NA	Water	6020B	420155
310-279943-15	MW-311	Total/NA	Water	6020B	420155
310-279943-16	MW-312	Total/NA	Water	6020B	420155
310-279943-17	MW-313	Total/NA	Water	6020B	420155
310-279943-18	MW-313A	Total/NA	Water	6020B	420155
310-279943-19	MW-313B	Total/NA	Water	6020B	420155
310-279943-20	MW-314	Total/NA	Water	6020B	420157
310-279943-21	Field Blank	Total/NA	Water	6020B	420157
MB 310-420155/1-A	Method Blank	Total/NA	Water	6020B	420155
MB 310-420157/1-A	Method Blank	Total/NA	Water	6020B	420157
LCS 310-420155/2-A	Lab Control Sample	Total/NA	Water	6020B	420155
LCS 310-420157/2-A	Lab Control Sample	Total/NA	Water	6020B	420157
310-279943-1 MS	MW-301	Total/NA	Water	6020B	420155
310-279943-1 MSD	MW-301	Total/NA	Water	6020B	420155
310-279943-20 MS	MW-314	Total/NA	Water	6020B	420157
310-279943-20 MSD	MW-314	Total/NA	Water	6020B	420157
310-279943-11 DU	MW-308	Total/NA	Water	6020B	420155

Prep Batch: 420542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-4	MW-303	Total/NA	Water	7470A	
310-279943-5	MW-304	Total/NA	Water	7470A	
310-279943-14	MW-310A	Total/NA	Water	7470A	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
SDG: 25224066

Metals (Continued)

Prep Batch: 420542 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-15	MW-311	Total/NA	Water	7470A	
310-279943-20	MW-314	Total/NA	Water	7470A	
310-279943-21	Field Blank	Total/NA	Water	7470A	
MB 310-420542/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-420542/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-279943-14 MS	MW-310A	Total/NA	Water	7470A	
310-279943-14 MSD	MW-310A	Total/NA	Water	7470A	
310-279943-5 DU	MW-304	Total/NA	Water	7470A	

Prep Batch: 420545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-1	MW-301	Total/NA	Water	7470A	
310-279943-2	MW-302	Total/NA	Water	7470A	
310-279943-6	MW-305	Total/NA	Water	7470A	
310-279943-7	MW-306	Total/NA	Water	7470A	
310-279943-8	MW-307	Total/NA	Water	7470A	
310-279943-11	MW-308	Total/NA	Water	7470A	
310-279943-12	MW-309	Total/NA	Water	7470A	
310-279943-13	MW-310	Total/NA	Water	7470A	
MB 310-420545/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-420545/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-279943-2 MS	MW-302	Total/NA	Water	7470A	
310-279943-2 MSD	MW-302	Total/NA	Water	7470A	

Analysis Batch: 420587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-1	MW-301	Total/NA	Water	6020B	420155
310-279943-4	MW-303	Total/NA	Water	6020B	420155
310-279943-11	MW-308	Total/NA	Water	6020B	420155
310-279943-12	MW-309	Total/NA	Water	6020B	420155
310-279943-1 MS	MW-301	Total/NA	Water	6020B	420155
310-279943-1 MSD	MW-301	Total/NA	Water	6020B	420155
310-279943-11 DU	MW-308	Total/NA	Water	6020B	420155

Analysis Batch: 420788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-4	MW-303	Total/NA	Water	7470A	420542
310-279943-5	MW-304	Total/NA	Water	7470A	420542
310-279943-14	MW-310A	Total/NA	Water	7470A	420542
310-279943-15	MW-311	Total/NA	Water	7470A	420542
310-279943-20	MW-314	Total/NA	Water	7470A	420542
310-279943-21	Field Blank	Total/NA	Water	7470A	420542
MB 310-420542/1-A	Method Blank	Total/NA	Water	7470A	420542
LCS 310-420542/2-A	Lab Control Sample	Total/NA	Water	7470A	420542
310-279943-14 MS	MW-310A	Total/NA	Water	7470A	420542
310-279943-14 MSD	MW-310A	Total/NA	Water	7470A	420542
310-279943-5 DU	MW-304	Total/NA	Water	7470A	420542

Analysis Batch: 421070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-1	MW-301	Total/NA	Water	7470A	420545

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
SDG: 25224066

Metals (Continued)

Analysis Batch: 421070 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-2	MW-302	Total/NA	Water	7470A	420545
310-279943-6	MW-305	Total/NA	Water	7470A	420545
310-279943-7	MW-306	Total/NA	Water	7470A	420545
310-279943-8	MW-307	Total/NA	Water	7470A	420545
310-279943-11	MW-308	Total/NA	Water	7470A	420545
310-279943-12	MW-309	Total/NA	Water	7470A	420545
310-279943-13	MW-310	Total/NA	Water	7470A	420545
MB 310-420545/1-A	Method Blank	Total/NA	Water	7470A	420545
LCS 310-420545/2-A	Lab Control Sample	Total/NA	Water	7470A	420545
310-279943-2 MS	MW-302	Total/NA	Water	7470A	420545
310-279943-2 MSD	MW-302	Total/NA	Water	7470A	420545

General Chemistry

Analysis Batch: 420025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-1	MW-301	Total/NA	Water	SM 4500 H+ B	
310-279943-2	MW-302	Total/NA	Water	SM 4500 H+ B	
310-279943-4	MW-303	Total/NA	Water	SM 4500 H+ B	
310-279943-5	MW-304	Total/NA	Water	SM 4500 H+ B	
310-279943-6	MW-305	Total/NA	Water	SM 4500 H+ B	
310-279943-7	MW-306	Total/NA	Water	SM 4500 H+ B	
310-279943-8	MW-307	Total/NA	Water	SM 4500 H+ B	
310-279943-11	MW-308	Total/NA	Water	SM 4500 H+ B	
310-279943-12	MW-309	Total/NA	Water	SM 4500 H+ B	
310-279943-13	MW-310	Total/NA	Water	SM 4500 H+ B	
310-279943-14	MW-310A	Total/NA	Water	SM 4500 H+ B	
310-279943-15	MW-311	Total/NA	Water	SM 4500 H+ B	
310-279943-20	MW-314	Total/NA	Water	SM 4500 H+ B	
310-279943-21	Field Blank	Total/NA	Water	SM 4500 H+ B	
LCS 310-420025/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCS 310-420025/28	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-279943-5 DU	MW-304	Total/NA	Water	SM 4500 H+ B	
310-279943-21 DU	Field Blank	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 420050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-1	MW-301	Total/NA	Water	SM 2540C	
310-279943-2	MW-302	Total/NA	Water	SM 2540C	
310-279943-7	MW-306	Total/NA	Water	SM 2540C	
310-279943-8	MW-307	Total/NA	Water	SM 2540C	
MB 310-420050/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-420050/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 420051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-4	MW-303	Total/NA	Water	SM 2540C	
310-279943-5	MW-304	Total/NA	Water	SM 2540C	
310-279943-6	MW-305	Total/NA	Water	SM 2540C	
310-279943-11	MW-308	Total/NA	Water	SM 2540C	
310-279943-13	MW-310	Total/NA	Water	SM 2540C	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
SDG: 25224066

General Chemistry (Continued)

Analysis Batch: 420051 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-420051/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-420051/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 420152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-12	MW-309	Total/NA	Water	SM 2540C	
310-279943-14	MW-310A	Total/NA	Water	SM 2540C	
310-279943-15	MW-311	Total/NA	Water	SM 2540C	
310-279943-20	MW-314	Total/NA	Water	SM 2540C	
310-279943-21	Field Blank	Total/NA	Water	SM 2540C	
MB 310-420152/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-420152/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 421050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-17	MW-313	Total/NA	Water	SM 2320B	
LCS 310-421050/2	Lab Control Sample	Total/NA	Water	SM 2320B	

Rad

Prep Batch: 659460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-1	MW-301	Total/NA	Water	PrecSep-21	
310-279943-2	MW-302	Total/NA	Water	PrecSep-21	
310-279943-4	MW-303	Total/NA	Water	PrecSep-21	
310-279943-5	MW-304	Total/NA	Water	PrecSep-21	
310-279943-6	MW-305	Total/NA	Water	PrecSep-21	
310-279943-7	MW-306	Total/NA	Water	PrecSep-21	
310-279943-8	MW-307	Total/NA	Water	PrecSep-21	
310-279943-11	MW-308	Total/NA	Water	PrecSep-21	
310-279943-12	MW-309	Total/NA	Water	PrecSep-21	
310-279943-13	MW-310	Total/NA	Water	PrecSep-21	
310-279943-14	MW-310A	Total/NA	Water	PrecSep-21	
310-279943-15	MW-311	Total/NA	Water	PrecSep-21	
310-279943-20	MW-314	Total/NA	Water	PrecSep-21	
310-279943-21	Field Blank	Total/NA	Water	PrecSep-21	
MB 160-659460/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-659460/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
310-279943-2 DU	MW-302	Total/NA	Water	PrecSep-21	

Prep Batch: 659461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-1	MW-301	Total/NA	Water	PrecSep_0	
310-279943-2	MW-302	Total/NA	Water	PrecSep_0	
310-279943-4	MW-303	Total/NA	Water	PrecSep_0	
310-279943-5	MW-304	Total/NA	Water	PrecSep_0	
310-279943-6	MW-305	Total/NA	Water	PrecSep_0	
310-279943-7	MW-306	Total/NA	Water	PrecSep_0	
310-279943-8	MW-307	Total/NA	Water	PrecSep_0	
310-279943-11	MW-308	Total/NA	Water	PrecSep_0	
310-279943-12	MW-309	Total/NA	Water	PrecSep_0	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
SDG: 25224066

Rad (Continued)

Prep Batch: 659461 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-13	MW-310	Total/NA	Water	PrecSep_0	
310-279943-14	MW-310A	Total/NA	Water	PrecSep_0	
310-279943-15	MW-311	Total/NA	Water	PrecSep_0	
310-279943-20	MW-314	Total/NA	Water	PrecSep_0	
310-279943-21	Field Blank	Total/NA	Water	PrecSep_0	
MB 160-659461/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-659461/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
310-279943-2 DU	MW-302	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 420601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279943-1	MW-301	Total/NA	Water	Field Sampling	
310-279943-2	MW-302	Total/NA	Water	Field Sampling	
310-279943-3	MW-302A	Total/NA	Water	Field Sampling	
310-279943-4	MW-303	Total/NA	Water	Field Sampling	
310-279943-5	MW-304	Total/NA	Water	Field Sampling	
310-279943-6	MW-305	Total/NA	Water	Field Sampling	
310-279943-7	MW-306	Total/NA	Water	Field Sampling	
310-279943-8	MW-307	Total/NA	Water	Field Sampling	
310-279943-9	MW-307A	Total/NA	Water	Field Sampling	
310-279943-10	MW-307B	Total/NA	Water	Field Sampling	
310-279943-11	MW-308	Total/NA	Water	Field Sampling	
310-279943-12	MW-309	Total/NA	Water	Field Sampling	
310-279943-13	MW-310	Total/NA	Water	Field Sampling	
310-279943-14	MW-310A	Total/NA	Water	Field Sampling	
310-279943-15	MW-311	Total/NA	Water	Field Sampling	
310-279943-16	MW-312	Total/NA	Water	Field Sampling	
310-279943-17	MW-313	Total/NA	Water	Field Sampling	
310-279943-18	MW-313A	Total/NA	Water	Field Sampling	
310-279943-19	MW-313B	Total/NA	Water	Field Sampling	
310-279943-20	MW-314	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-301
Date Collected: 04/24/24 09:00
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	420317	QTZ5	EET CF	04/30/24 12:41
Total/NA	Analysis	9056A		20	420317	QTZ5	EET CF	04/30/24 16:11
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		5	420587	NFT2	EET CF	05/02/24 22:03
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 20:18
Total/NA	Prep	7470A			420545	A6US	EET CF	05/02/24 15:18
Total/NA	Analysis	7470A		1	421070	A6US	EET CF	05/08/24 11:25
Total/NA	Analysis	SM 2540C		1	420050	D7CP	EET CF	04/27/24 11:12
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:13
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663393	SCB	EET SL	05/26/24 13:14
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662959	SCB	EET SL	05/22/24 11:47
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 08:52
Total/NA	Analysis	Field Sampling		1	420601	BJ0R	EET CF	04/24/24 09:00

Client Sample ID: MW-302
Date Collected: 04/24/24 10:25
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	420317	QTZ5	EET CF	04/30/24 12:53
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 20:37
Total/NA	Prep	7470A			420545	A6US	EET CF	05/02/24 15:18
Total/NA	Analysis	7470A		1	421070	A6US	EET CF	05/08/24 11:27
Total/NA	Analysis	SM 2540C		1	420050	D7CP	EET CF	04/27/24 11:12
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:14
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663393	SCB	EET SL	05/26/24 13:14
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662959	SCB	EET SL	05/22/24 11:47
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 08:52
Total/NA	Analysis	Field Sampling		1	420601	BJ0R	EET CF	04/24/24 10:25

Client Sample ID: MW-302A
Date Collected: 04/24/24 10:50
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 20:40
Total/NA	Analysis	Field Sampling		1	420601	BJ0R	EET CF	04/24/24 10:50

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-303
Date Collected: 04/23/24 15:10
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	420317	QTZ5	EET CF	04/30/24 13:05
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		4	420587	NFT2	EET CF	05/02/24 22:28
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 20:42
Total/NA	Prep	7470A			420542	A6US	EET CF	05/02/24 15:09
Total/NA	Analysis	7470A		1	420788	A6US	EET CF	05/06/24 13:57
Total/NA	Analysis	SM 2540C		1	420051	D7CP	EET CF	04/27/24 11:29
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:18
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663393	SCB	EET SL	05/26/24 13:14
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662959	SCB	EET SL	05/22/24 11:47
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 08:52
Total/NA	Analysis	Field Sampling		1	420601	BJOR	EET CF	04/23/24 15:10

Client Sample ID: MW-304
Date Collected: 04/23/24 14:25
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	420317	QTZ5	EET CF	04/30/24 13:18
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 20:44
Total/NA	Prep	7470A			420542	A6US	EET CF	05/02/24 15:09
Total/NA	Analysis	7470A		1	420788	A6US	EET CF	05/06/24 14:04
Total/NA	Analysis	SM 2540C		1	420051	D7CP	EET CF	04/27/24 11:29
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:19
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663393	SCB	EET SL	05/26/24 13:14
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662959	SCB	EET SL	05/22/24 11:48
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 08:52
Total/NA	Analysis	Field Sampling		1	420601	BJOR	EET CF	04/23/24 14:25

Client Sample ID: MW-305
Date Collected: 04/23/24 12:00
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	420317	QTZ5	EET CF	04/30/24 13:30
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 20:46

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-305
Date Collected: 04/23/24 12:00
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			420545	A6US	EET CF	05/02/24 15:18
Total/NA	Analysis	7470A		1	421070	A6US	EET CF	05/08/24 11:34
Total/NA	Analysis	SM 2540C		1	420051	D7CP	EET CF	04/27/24 11:29
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:21
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663393	SCB	EET SL	05/26/24 13:15
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662959	SCB	EET SL	05/22/24 11:48
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 08:52
Total/NA	Analysis	Field Sampling		1	420601	BJ0R	EET CF	04/23/24 12:00

Client Sample ID: MW-306
Date Collected: 04/24/24 15:35
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	420317	QTZ5	EET CF	04/30/24 14:46
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 20:48
Total/NA	Prep	7470A			420545	A6US	EET CF	05/02/24 15:18
Total/NA	Analysis	7470A		1	421070	A6US	EET CF	05/08/24 11:36
Total/NA	Analysis	SM 2540C		1	420050	D7CP	EET CF	04/27/24 11:12
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:22
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663393	SCB	EET SL	05/26/24 13:15
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662959	SCB	EET SL	05/22/24 11:48
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 08:52
Total/NA	Analysis	Field Sampling		1	420601	BJ0R	EET CF	04/24/24 15:35

Client Sample ID: MW-307
Date Collected: 04/24/24 12:55
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	420317	QTZ5	EET CF	04/30/24 14:58
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 20:51
Total/NA	Prep	7470A			420545	A6US	EET CF	05/02/24 15:18
Total/NA	Analysis	7470A		1	421070	A6US	EET CF	05/08/24 11:38
Total/NA	Analysis	SM 2540C		1	420050	D7CP	EET CF	04/27/24 11:12
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:23
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663393	SCB	EET SL	05/26/24 13:15

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
SDG: 25224066

Client Sample ID: MW-307
Date Collected: 04/24/24 12:55
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662959	SCB	EET SL	05/22/24 11:48
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 08:52
Total/NA	Analysis	Field Sampling		1	420601	BJOR	EET CF	04/24/24 12:55

Client Sample ID: MW-307A
Date Collected: 04/24/24 13:45
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 20:53
Total/NA	Analysis	Field Sampling		1	420601	BJOR	EET CF	04/24/24 13:45

Client Sample ID: MW-307B
Date Collected: 04/24/24 14:35
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 20:55
Total/NA	Analysis	Field Sampling		1	420601	BJOR	EET CF	04/24/24 14:35

Client Sample ID: MW-308
Date Collected: 04/23/24 11:05
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	420317	QTZ5	EET CF	04/30/24 15:10
Total/NA	Analysis	9056A		20	420317	QTZ5	EET CF	04/30/24 16:23
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		7	420587	NFT2	EET CF	05/02/24 22:31
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 20:57
Total/NA	Prep	7470A			420545	A6US	EET CF	05/02/24 15:18
Total/NA	Analysis	7470A		1	421070	A6US	EET CF	05/08/24 11:40
Total/NA	Analysis	SM 2540C		1	420051	D7CP	EET CF	04/27/24 11:29
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:24
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663393	SCB	EET SL	05/26/24 13:15
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662959	SCB	EET SL	05/22/24 11:48
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 10:46
Total/NA	Analysis	Field Sampling		1	420601	BJOR	EET CF	04/23/24 11:05

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-309
Date Collected: 04/25/24 09:35
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	420905	QTZ5	EET CF	05/03/24 16:14
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		4	420587	NFT2	EET CF	05/02/24 22:38
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 21:10
Total/NA	Prep	7470A			420545	A6US	EET CF	05/02/24 15:18
Total/NA	Analysis	7470A		1	421070	A6US	EET CF	05/08/24 11:42
Total/NA	Analysis	SM 2540C		1	420152	D7CP	EET CF	04/29/24 15:17
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:25
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663393	SCB	EET SL	05/26/24 13:15
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662959	SCB	EET SL	05/22/24 11:48
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 10:46
Total/NA	Analysis	Field Sampling		1	420601	BJOR	EET CF	04/25/24 09:35

Client Sample ID: MW-310
Date Collected: 04/23/24 09:50
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	420317	QTZ5	EET CF	04/30/24 15:22
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 21:12
Total/NA	Prep	7470A			420545	A6US	EET CF	05/02/24 15:18
Total/NA	Analysis	7470A		1	421070	A6US	EET CF	05/08/24 11:44
Total/NA	Analysis	SM 2540C		1	420051	D7CP	EET CF	04/27/24 11:29
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:26
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663394	SCB	EET SL	05/26/24 13:31
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662959	SCB	EET SL	05/22/24 11:48
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 10:46
Total/NA	Analysis	Field Sampling		1	420601	BJOR	EET CF	04/23/24 09:50

Client Sample ID: MW-310A
Date Collected: 04/25/24 11:05
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	420905	QTZ5	EET CF	05/03/24 16:52
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 21:14

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-310A
Date Collected: 04/25/24 11:05
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			420542	A6US	EET CF	05/02/24 15:09
Total/NA	Analysis	7470A		1	420788	A6US	EET CF	05/06/24 13:19
Total/NA	Analysis	SM 2540C		1	420152	D7CP	EET CF	04/29/24 15:17
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:27
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663394	SCB	EET SL	05/26/24 13:31
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662961	SCB	EET SL	05/22/24 12:05
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 10:46
Total/NA	Analysis	Field Sampling		1	420601	BJ0R	EET CF	04/25/24 11:05

Client Sample ID: MW-311
Date Collected: 04/25/24 11:45
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	420905	QTZ5	EET CF	05/03/24 17:04
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 21:17
Total/NA	Prep	7470A			420542	A6US	EET CF	05/02/24 15:09
Total/NA	Analysis	7470A		1	420788	A6US	EET CF	05/06/24 13:25
Total/NA	Analysis	SM 2540C		1	420152	D7CP	EET CF	04/29/24 15:17
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:29
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663394	SCB	EET SL	05/26/24 13:31
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662961	SCB	EET SL	05/22/24 12:05
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 10:46
Total/NA	Analysis	Field Sampling		1	420601	BJ0R	EET CF	04/25/24 11:45

Client Sample ID: MW-312
Date Collected: 04/23/24 13:10
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 21:19
Total/NA	Analysis	Field Sampling		1	420601	BJ0R	EET CF	04/23/24 13:10

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: MW-313
Date Collected: 04/24/24 16:35
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 21:21
Total/NA	Analysis	SM 2320B		1	421050	WZC8	EET CF	05/08/24 12:00
Total/NA	Analysis	Field Sampling		1	420601	BJOR	EET CF	04/24/24 16:35

Client Sample ID: MW-313A
Date Collected: 04/25/24 08:20
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 21:23
Total/NA	Analysis	Field Sampling		1	420601	BJOR	EET CF	04/25/24 08:20

Client Sample ID: MW-313B
Date Collected: 04/25/24 08:55
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			420155	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 21:25
Total/NA	Analysis	Field Sampling		1	420601	BJOR	EET CF	04/25/24 08:55

Client Sample ID: MW-314
Date Collected: 04/25/24 10:35
Date Received: 04/26/24 16:00

Lab Sample ID: 310-279943-20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	420905	QTZ5	EET CF	05/03/24 17:17
Total/NA	Prep	3005A			420157	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 17:35
Total/NA	Prep	7470A			420542	A6US	EET CF	05/02/24 15:09
Total/NA	Analysis	7470A		1	420788	A6US	EET CF	05/06/24 13:38
Total/NA	Analysis	SM 2540C		1	420152	D7CP	EET CF	04/29/24 15:17
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:30
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663394	SCB	EET SL	05/26/24 13:31
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662961	SCB	EET SL	05/22/24 12:05
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 08:52
Total/NA	Analysis	Field Sampling		1	420601	BJOR	EET CF	04/25/24 10:35

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Client Sample ID: Field Blank

Lab Sample ID: 310-279943-21

Date Collected: 04/25/24 10:30

Matrix: Water

Date Received: 04/26/24 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	420905	QTZ5	EET CF	05/03/24 17:30
Total/NA	Prep	3005A			420157	QTZ5	EET CF	04/30/24 09:00
Total/NA	Analysis	6020B		1	420438	NFT2	EET CF	05/01/24 17:45
Total/NA	Prep	7470A			420542	A6US	EET CF	05/02/24 15:09
Total/NA	Analysis	7470A		1	420788	A6US	EET CF	05/06/24 13:40
Total/NA	Analysis	SM 2540C		1	420152	D7CP	EET CF	04/29/24 15:17
Total/NA	Analysis	SM 4500 H+ B		1	420025	A3GU	EET CF	04/26/24 17:33
Total/NA	Prep	PrecSep-21			659460	MLT	EET SL	05/01/24 08:34
Total/NA	Analysis	903.0		1	663394	SCB	EET SL	05/26/24 13:31
Total/NA	Prep	PrecSep_0			659461	MLT	EET SL	05/01/24 08:40
Total/NA	Analysis	904.0		1	662961	SCB	EET SL	05/22/24 12:05
Total/NA	Analysis	Ra226_Ra228 Pos		1	663413	FLC	EET SL	05/28/24 10:46

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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Accreditation/Certification Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	05-27-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
SDG: 25224066

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2320B	Alkalinity	SM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
Field Sampling	Field Sampling	EPA	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Environment Testing
America



310-279943 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS Engineers</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received	DATE <u>4/26/24</u>	TIME <u>1600</u>	Received By: <u>Am</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID:	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>1</u> of <u>4</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>X</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>3.8</u>		Corrected Temp (°C): <u>3.8</u>	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Environment Testing
America

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Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS Engineers</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE	TIME	Received By:
	<u>4/26/24</u>	<u>11:00</u>	<u>AM</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee			
<input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>2</u> of <u>4</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>X</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>3.4</u>		Corrected Temp (°C): <u>3.4</u>	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Environment Testing
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Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS Engineers</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>4/26/24</u>	TIME <u>1600</u>	Received By: <u>AM</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>3</u> of <u>4</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID:	<u>X</u>	Correction Factor (°C):	<u>0</u>
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):	<u>0.6</u>	Corrected Temp (°C):	<u>0.6</u>
• Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			
<u>1-1L nitric received empty</u>			
<u>MW310A</u>			



Environment Testing
America

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Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SOS Engineers</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>4/26/24</u>	TIME <u>1600</u>	Received By: <u>Am</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>4</u> of <u>4</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID:	<u>X</u>	Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):	<u>1.3</u>	Corrected Temp (°C): <u>1.3</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Chain of Custody Record

Client Information		Lab PM		Carrier Tracking No(s)		COC No									
Client Contact: Meghan Blodgett		Sandra Fredrick		Sandra Fredrick		Sandra Fredrick									
Company: SCS Engineers		E-Mail: Sandra.Fredrick@e-eurofins.com		State of Origin		Page 1 of 2									
Address: 2830 Dairy Drive		City: Madison		State: IA		Job #									
City: Madison		State: IA		Country: USA		Preservation Codes									
State: IA		Zip: WI 53718		Compliance Project: \ Yes \ No		A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Amchlor H Ascorbic Acid I Ice J Distilled Water K EDTA L EDA M Hexane N None O AsNaO2 P Na2O4S Q Na2SO3 R Na2SO4 S H2SO4 T TSP Dodecylhydrate U Acetone V MCAA W PH 4-5 X other special Z Other									
Phone: 606-224-2830		FO #: 25224066		WOW #		Total Number of Containers									
Email: mblodgett@scsengineers.com		Project #: 25224066		SSOW#		Special Instructions/Note									
Project Name: Burlington Generating Station 25224066		Site: Burlington IA													
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp G=grab)	Matrix (W=water solid O=wash, oil, BT Tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 Metals total (Sb As Ba Be B Ca Cd Cr Co Fe Pb Li Mo Se Ti)	7470A Mercury total	6020 Metals total (Fe Li Mg Mn Mo)	TDS and pH	9056A Chloride Fluoride Sulfate	EPA 903/904 Radium 226 + 228	SM 2320B Bicarbonate & carbonate alkalinity	Analysis Requested	Preservation Codes
MW-301	4/24/24	700	G	W	N	X	X	X	X	X	X	X	D		
MW-302	4/24/24	1225	G	W	N	X	X	X	X	X	X	X	D		
MW-302A	4/24/24	1050	G	W	N				X						
MW-303	4/23/24	1510	G	W	N	X	X	X	X	X	X	X	D		
MW-304	4/23/24	1425	G	W	N	X	X	X	X	X	X	X	D		
MW-305	4/23/24	1200	G	W	N	X	X	X	X	X	X	X	D		
MW-306	4/24/24	505	G	W	N	X	X	X	X	X	X	X	D		
MW-307	4/24/24	1255	G	W	N	X	X	X	X	X	X	X	D		
MW-307A	4/24/24	1345	G	W	N	X	X	X	X	X	X	X	D		
MW-307B	4/24/24	435	G	W	N	X	X	X	X	X	X	X	D		
MW-308	4/23/24	1105	G	W	N	X	X	X	X	X	X	X	D		
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological															
Deliverable Requested I II III IV Other (specify)															
Empty Kit Relinquished by															
Relinquished by: Tyler B															
Relinquished Date/Time: 4/26/24 200															
Relinquished by Company: SCS															
Relinquished Date/Time: 4/26/24 1000															
Relinquished by Company: Eurofins															
Custody Seals Intact: Yes															
Custody Seal No															

Chain of Custody Record

Client Information		Sampler		Lab PM		Camera Tracking (Yes)		COC No	
Client Contact: Meghan Blodgett Company SCS Engineers		Name: Tyler Stung Phone: 555-525-2716		Sandie Fredrick E-Mail: Sandie.Fredrick@et.eurofins.com		State of Origin		Page 2 of 2	
Address: 2830 Dairy Drive City: Madison State: ZP WI 53718 Phone: 608-224-2830 Email: mblodgett@scseng-needs.com Project Name: Burlington Generating Station 25224066 Site: Burlington IA		Due Date Requested		Analysis Requested		Total Number of Containers		Preservation Codes	
TAT Requested (days)		Compliance Project \ Yes \ No		Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)		Special Instructions/Note	
PO # 25224066		Sample Date		Sample Time		Sample Type (C=Comp G=grab)		Matrix (W=water S=solid O=original)	
WO # 25224066		Sample Date		Sample Time		Sample Type (C=Comp G=grab)		Matrix (W=water S=solid O=original)	
Project # 25224066		Sample Date		Sample Time		Sample Type (C=Comp G=grab)		Matrix (W=water S=solid O=original)	
SSOW#		Sample Date		Sample Time		Sample Type (C=Comp G=grab)		Matrix (W=water S=solid O=original)	
MW-309	4/25/24	1735	G	W	X	X	X	X	any-able to fill at the 2 Radium II bottles see 44-310A
MW-310	4/23/24	1950	G	W	X	X	X		
MW-310A	4/25/24	1105	G	W	X	X	X		
MW-311	4/25/24	1145	G	W	X	X	X		
MW-312	4/23/24	1310	G	W	X	X	X		
MW-313	4/23/24	1655	G	W	X	X	X		
MW-313A	4/25/24	820	G	W	X	X	X		
MW-313B	4/25/24	455	G	W	X	X	X		
MW-314	4/25/24	035	G	W	X	X	X		
Field Blank	4/25/24	1030	G	W	X	X	X		
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Sun Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I II III IV Other (specify)									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Special Instructions/QC Requirements									
Empty Kit Relinquished by _____ Date _____ Time _____ Method of Shipment _____									
Relinquished by Tyler Stung Date 4/26/24 Time 1200 Company SCS Relinquished by _____ Date _____ Time _____ Company _____ Relinquished by _____ Date _____ Time _____ Company _____									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No _____ Cooler Temperature(s) C and Other Remarks _____									



Eurofins Cedar Falls
 3019 Venture Way
 Cedar Falls, IA 50613
 Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record



Client Information (Sub Contract Lab)			Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	IOC No: 310-71760-1						
Client Contact: Shipping/Receiving			E-Mail: Sandra.Fredrick@et.eurofins.com	State of Origin: Iowa	Page: Page 1 of 2						
Company: TestAmerica Laboratories, Inc.			Accreditations Required (See note): State Program - Iowa		Job #: 310-279943-1						
Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email:			Due Date Requested: 5/6/2024 TAT Requested (days):								
Project Name: Burlington Generating Station 25224066 Site:			PO #: WO #:								
Project #: 31011020 SSOW#:			Analysis Requested:								
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Overstabil, BT=Isotope, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	90.0/PreSep_21 Radium-226 (GFC)	90.0/PreSep_0 Radium-226 (GFC)	Ra226_228GFC_P/ Combined Radium-226 and Radium-228	Total Number of Containers	Special Instructions/Note:
MW-301 (310-279943-1)	4/24/24	09:00 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-302 (310-279943-2)	4/24/24	10:25 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-303 (310-279943-4)	4/23/24	15:10 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-304 (310-279943-5)	4/23/24	14:25 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-305 (310-279943-6)	4/23/24	12:00 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-306 (310-279943-7)	4/24/24	15:35 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-307 (310-279943-8)	4/24/24	12:55 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-308 (310-279943-11)	4/23/24	11:05 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-309 (310-279943-12)	4/25/24	09:35 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/element/analyte being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____
 Relinquished by: _____ Company: _____ Received by: Richard Thornley Date/Time: APR 30 2024 0830 Company: ECHSTL
 Relinquished by: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: _____ Relinquished by: _____ Cooler Temperature(s) °C and Other Remarks: _____
 Δ Yes Δ No
 CUSTODY SEAL NO.: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements: _____



Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Fredrick, Sandie	Lab No: 310-71760-1
Shipping/Receiving		E-Mail: Sandra.Fredrick@et.eurofins.com	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Iowa	Job #: 310-279943-1
Address: 13715 Rider Trail North,		Due Date Requested: 5/6/2024	Preservation Codes:
City: Earth City		TAT Requested (days):	
State, Zip: MO, 63045		PO #:	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		WO #:	
Email:		Project #: 31011020	
Project Name: Burlington Generating Station 25224066		SSOW#:	
Site:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, B1=TRUSS, A=Air)	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	903.0/PreSep_21 Radium-226 (GFP)	904.0/PreSep_0 Radium-226 (GFP)	R226.226GFP_C/P/Combined Radium-226 and Radium-228	Total Number of Containers	Special Instructions/Note:
MW-301 (310-279943-1)	4/24/24	09:00 Central		Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-302 (310-279943-2)	4/24/24	10:25 Central		Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-303 (310-279943-4)	4/23/24	15:10 Central		Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-304 (310-279943-5)	4/23/24	14:25 Central		Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-305 (310-279943-6)	4/23/24	12:00 Central		Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-306 (310-279943-7)	4/24/24	15:35 Central		Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-307 (310-279943-8)	4/24/24	12:55 Central		Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-308 (310-279943-11)	4/23/24	11:05 Central		Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-309 (310-279943-12)	4/25/24	09:35 Central		Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2

Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: _____ Custody Seal No.: _____
 Δ Yes Δ No

Special Instructions/QC Requirements: _____
 Return To Client Disposal By Lab Archive For _____ Months

Received by: **Richard Thornley** Date/Time: **APR 30 2024 0830** Company: **ETHSL**
 Received by: _____ Date/Time: _____ Company: _____
 Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: _____



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:						
Client Contact: Shipping/Receiving		Phone:	Fredrick, Sandie E-Mail: Sandra.Fredrick@eurofins.com	State of Origin: Iowa	310-71760.2						
Company: TestAmerica Laboratories, Inc.		Due Date Requested: 5/6/2024	Accreditations Required (See note): State Program - Iowa								
Address: 13715 Rider Trail North,		TAT Requested (days):	Job #: 310-279943-1								
City: Earth City	State, Zip: MO, 63045	PO #:	Preservation Codes:								
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	WO #:	Project #: 31011020	Analysis Requested:								
E-mail:	SSOV#:	Site: Burlington Generating Station 25224066	Total Number of containers								
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Solid, O=Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Radium-226 (GFP)	904.0/PrecSep_0 Radium-228 (GFP)	Ra226_228GFPC_P/ Combined Radium-226 and Radium-228	Special Instructions/Note:
MW-310 (310-279943-13)	4/23/24	09:50 Central	Water	X	X	X	X	X	X	DO NOT SHIP ON ICE TO ST. LOUIS	
MW-310A (310-279943-14)	4/25/24	11:05 Central	Water	X	X	X	X	X	X	DO NOT SHIP ON ICE TO ST. LOUIS	
MW-311 (310-279943-15)	4/25/24	11:45 Central	Water	X	X	X	X	X	X	DO NOT SHIP ON ICE TO ST. LOUIS	
MW-314 (310-279943-20)	4/25/24	10:35 Central	Water	X	X	X	X	X	X	DO NOT SHIP ON ICE TO ST. LOUIS	
Field Blank (310-279943-21)	4/25/24	10:30 Central	Water	X	X	X	X	X	X	DO NOT SHIP ON ICE TO ST. LOUIS	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.</p>											
Possible Hazard Identification											
<input type="checkbox"/> Unconfirmed <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months											
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2											
Special Instructions/QC Requirements:											
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____											
Relinquished by: _____ Date/Time: _____ Company: _____											
Relinquished by: Richard Thomley Date/Time: APR 30 2024 0830 Company: ETA/SLC											
Relinquished by: _____ Date/Time: _____ Company: _____											
Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: _____											



Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-279943-1

SDG Number: 25224066

Login Number: 279943

List Number: 1

Creator: Muehling, Angela C

List Source: Eurofins Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-279943-1

SDG Number: 25224066

Login Number: 279943

List Number: 2

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 04/30/24 12:07 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Tracer/Carrier Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25224066

Job ID: 310-279943-1
 SDG: 25224066

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	Y
310-279943-1	MW-301	90.4	
310-279943-2	MW-302	91.6	
310-279943-2 DU	MW-302	88.1	
310-279943-4	MW-303	91.4	
310-279943-5	MW-304	86.8	
310-279943-6	MW-305	84.8	
310-279943-7	MW-306	89.1	
310-279943-8	MW-307	87.6	
310-279943-11	MW-308	86.8	
310-279943-12	MW-309	80.2	
310-279943-13	MW-310	91.4	
310-279943-14	MW-310A	93.9	
310-279943-15	MW-311	85.0	
310-279943-20	MW-314	103	
310-279943-21	Field Blank	89.8	
LCS 160-659460/2-A	Lab Control Sample	93.1	
MB 160-659460/1-A	Method Blank	93.1	

Tracer/Carrier Legend

Ba = Barium

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	Y (30-110)
310-279943-1	MW-301	90.4	73.6
310-279943-2	MW-302	91.6	74.0
310-279943-2 DU	MW-302	88.1	74.4
310-279943-4	MW-303	91.4	74.4
310-279943-5	MW-304	86.8	75.1
310-279943-6	MW-305	84.8	62.8
310-279943-7	MW-306	89.1	56.1
310-279943-8	MW-307	87.6	74.4
310-279943-11	MW-308	86.8	74.0
310-279943-12	MW-309	80.2	75.1
310-279943-13	MW-310	91.4	58.7
310-279943-14	MW-310A	93.9	73.3
310-279943-15	MW-311	85.0	72.5
310-279943-20	MW-314	103	76.6
310-279943-21	Field Blank	89.8	76.3
LCS 160-659461/2-A	Lab Control Sample	93.1	78.1
MB 160-659461/1-A	Method Blank	93.1	78.1

Tracer/Carrier Legend

Ba = Barium

Y = Y Carrier

Eurofins Cedar Falls

Table 1. Groundwater Monitoring Results - Field Parameters
Burlington Generating Station / SCS Engineers Project #25224066.00
April 2024

Sample	Sample Date	Temperature (Deg. C)	pH (Std. Units)	Dissolved Oxygen (mg/L)	Specific Conductivity (µmhos/cm)	ORP (mV)	Turbidity	Groundwater Elevation (amsl)
MW-301	4/24/2024	12.1	6.63	0.21	2,450	-62.8	16.54	521.23
MW-302	4/24/2024	11.3	6.53	0.21	1,126	-20.1	14.50	520.85
MW-302A	4/24/2024	10.6	7.20	0.36	489.9	-103.2	13.13	520.78
MW-303	4/23/2024	11.6	6.71	0.18	1,165	-82.5	9.98	520.89
MW-304	4/23/2024	14.4	6.76	0.18	923	-90.4	9.15	520.90
MW-305	4/23/2024	12.9	6.31	0.17	955	-33.6	11.17	520.96
MW-306	4/24/2024	12.2	8.66	0.15	662	-134.8	18.80	520.89
MW-307	4/24/2024	11.6	8.60	0.26	658	-216.9	15.20	521.08
MW-307A	4/24/2024	9.8	7.51	0.18	478.7	-128.2	18.65	522.38
MW-307B	4/24/2024	10.3	7.37	0.26	462.9	-103.0	14.36	520.96
MW-308	4/23/2024	12.2	7.16	0.26	1,672	-69.9	8.40	521.36
MW-309	4/25/2024	13.4	6.88	0.20	908	-118.3	22.15	521.18
MW-310	4/23/2024	9.3	7.09	0.24	747	-141.7	16.10	523.93
MW-310A	4/23/2024	11.9	6.90	4.09	1,173	35.4	37.08	521.84
MW-311	4/25/2024	11.3	6.76	0.19	1,279	-87.6	13.18	522.23
MW-312	4/23/2024	10.8	6.90	0.25	778	-100.0	13.65	520.93
MW-313	4/24/2024	9.8	7.05	0.23	679	-112.7	24.48	520.87
MW-313A	4/25/2024	8.0	7.43	0.27	438.1	-119.3	10.93	520.87
MW-313B	4/25/2024	8.6	7.30	0.29	483.1	-94.7	11.59	520.92
MW-314	4/25/2024	11.7	6.64	0.38	1148	-72.1	12.56	520.95

Abbreviations:

mg/L = milligrams per liter
mV = millivolts


amsl = above mean sea level
µmhos/cm = micromohs per cm

-- = Not Applicable
NM = not measured

Created by: MDB
Last revision by: RM
Checked by: EMS

Date: 5/10/2023
Date: 5/1/2024
Date: 5/2/2024

C:\Users\hld0\AppData\Local\Microsoft\Windows\NetCache\Content.Outlook\USG3GGGC\[2404 - BGS_CCR_Field.xlsx]GW Field Parameters



Appendix D

Historical Monitoring Results

Single Location

Name: IPL - Burlington

Location ID:

MW-301

Number of Sampling Dates:

25

Parameter Name	Units	4/20/2016	6/6/2016	8/16/2016	10/3/2016	1/10/2017	4/3/2017
Boron	ug/L	12400	10600	13100	10500	12000	14500
Calcium	mg/L	156	100	178	131	140	220
Chloride	mg/L	23.3	22.4	22.3	21.6	21.3	20.7
Fluoride	mg/L	0.55	0.29	0.43	0.3	0.37	0.36
Field pH	Std. Units	7.27	7.65	7.53	7.61	7.41	7.37
Sulfate	mg/L	193	170	206	378	385	215
Total Dissolved Solids	mg/L	782	630	857	729	816	1020
Antimony	ug/L	0.062	0.12	0.13	0.073	<0.058	0.049
Arsenic	ug/L	39.4	35	44.1	36.9	39.7	46.1
Barium	ug/L	381	239	406	294	343	464
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.046
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	0.032	<0.018
Chromium	ug/L	0.67	0.38	0.56	<0.34	0.44	0.34
Cobalt	ug/L	0.64	<0.5	0.52	<0.5	<0.5	0.57
Lead	ug/L	0.31	<0.19	<0.19	<0.19	<0.19	0.091
Lithium	ug/L	10.3	11.7	<4.9	22.8	20.1	13.2
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046
Molybdenum	ug/L	108	116	94.5	114	113	82.8
Selenium	ug/L	0.34	<0.18	0.29	<0.18	<0.18	0.4
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.08
Total Radium	pCi/L	1.33	0.933	2.03	0.643	0.512	1.16
Radium-226	pCi/L	0.6	0.144	0.367	0	0.0709	0.347
Radium-228	pCi/L	0.729	0.789	1.66	0.643	0.441	0.817
Collected By		--	0	0	--	0	0
Field Oxidation Potential	mV	-135.3	-110.7	-162.3	-156.4	-146.1	-164.7
Field Specific Conductance	umhos/cm	898	1702	2499	1776	1985	2507
Field Temperature	deg C	12.6	13.2	13.5	14.1	13.6	12.9
Groundwater Elevation	feet	522.63	521.07	521.81	527.48	525.38	523.08
Oxygen, Dissolved	mg/L	0.09	1.12	0.11	0.5	0.1	0.12
Turbidity	NTU	10.49	1	0.51	0.54	0.9	1.12
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	7	7.1	7	7.2	7.2	7.4
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-301

Number of Sampling Dates:

25

Parameter Name	Units	6/12/2017	8/16/2017	10/16/2017	5/9/2018	8/13/2018	10/9/2018
Boron	ug/L	10500	14000	9900	9140	12800	8040
Calcium	mg/L	156	211	140	85.3	174	103
Chloride	mg/L	21.5	20.8	22	22.7	21.7	21.5
Fluoride	mg/L	0.23	0.45	0.27	0.36	0.52	0.26
Field pH	Std. Units	7.36	6.89	7.58	7.4	7.91	7.34
Sulfate	mg/L	511	327	454	188	187	358
Total Dissolved Solids	mg/L	960	1190	780	568	960	656
Antimony	ug/L	<0.026	0.2	--	<0.026	<0.15	0.08
Arsenic	ug/L	33.4	42.7	--	34.9	40.1	37.7
Barium	ug/L	380	479	--	198	420	276
Beryllium	ug/L	<0.012	0.014	--	<0.012	<0.12	<0.089
Cadmium	ug/L	<0.018	<0.018	--	0.04	<0.07	<0.033
Chromium	ug/L	0.17	0.49	--	0.25	0.36	0.12
Cobalt	ug/L	0.16	0.46	--	0.15	0.45	0.1
Lead	ug/L	0.12	0.23	--	0.17	0.13	<0.13
Lithium	ug/L	29.4	18.2	--	17.8	18.9	24.5
Mercury	ug/L	<0.046	<0.046	--	<0.09	--	<0.09
Molybdenum	ug/L	116	98.5	--	113	81.7	120
Selenium	ug/L	0.1	0.35	--	0.25	0.28	0.13
Thallium	ug/L	0.08	0.059	--	<0.036	--	<0.099
Total Radium	pCi/L	1.86	1.81	--	0.712	1.15	1.5
Radium-226	pCi/L	0.901	1.14	--	0.712	0.693	0.534
Radium-228	pCi/L	0.954	0.671	--	-0.016	0.459	0.966
Collected By		0	0	0	--	--	--
Field Oxidation Potential	mV	-89.6	-90.4	38	-167.1	-145	-63.5
Field Specific Conductance	umhos/cm	859	1925	1065	600.8	1400	892
Field Temperature	deg C	13	13.8	13.8	12.9	16.8	17.2
Groundwater Elevation	feet	523.21	519.96	522.13	525.51	520.19	528.01
Oxygen, Dissolved	mg/L	0.17	0.05	0.12	0.08	0.35	0.24
Turbidity	NTU	2.02	0.4	1.26	4.23	5.78	8.43
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	6.9	7.1	7.2	7.2	7.2	7
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-301

Number of Sampling Dates:

25

Parameter Name	Units	3/12/2019	4/3/2019	10/10/2019	6/3/2020	10/16/2020	3/1/2021
Boron	ug/L	--	12000	8100	10000	12000	--
Calcium	mg/L	--	150	130	140	220	--
Chloride	mg/L	--	21	20	22	20	--
Fluoride	mg/L	--	0.77	<0.23	0.26	<0.23	--
Field pH	Std. Units	6.38	7.53	6.85	6.99	7.07	6.88
Sulfate	mg/L	--	190	390	250	170	--
Total Dissolved Solids	mg/L	--	890	690	910	970	--
Antimony	ug/L	--	<0.53	<0.53	<0.58	<0.51	--
Arsenic	ug/L	--	42	40	46	54	--
Barium	ug/L	--	380	320	330	500	--
Beryllium	ug/L	--	<0.27	<0.27	<0.27	<0.27	--
Cadmium	ug/L	--	<0.077	<0.039	<0.039	<0.049	--
Chromium	ug/L	--	<0.98	<0.98	<1.1	<1.1	--
Cobalt	ug/L	--	0.44	0.18	0.31	0.7	--
Lead	ug/L	--	<0.27	<0.27	<0.27	<0.11	--
Lithium	ug/L	--	13	26	16	10	--
Mercury	ug/L	--	<0.1	--	<0.1	<0.1	--
Molybdenum	ug/L	62.7	77	130	110	67	--
Selenium	ug/L	--	<1	<1	<1	<1	--
Thallium	ug/L	--	<0.27	--	<0.26	--	--
Total Radium	pCi/L	--	1.15	1.03	0.928/0.928	1	--
Radium-226	pCi/L	--	0.411	0.498	0.553/0.553	0.57	--
Radium-228	pCi/L	--	0.736	0.527	<0.411/0.376	0.43	--
Collected By		0	--	--	--	--	--
Field Oxidation Potential	mV	-73.1	-144.7	-162.9	37.1	-187.5	-176.6
Field Specific Conductance	umhos/cm	1055	1213	1063	1167	1503	1562
Field Temperature	deg C	12.56	12.35	13.9	13.4	13.7	12.2
Groundwater Elevation	feet	523.38	528.15	--	523.94	519.26	521.1
Oxygen, Dissolved	mg/L	2.61	0.59	0.23	0.25	0.09	0.16
Turbidity	NTU	17.1	21.1	12.55	20.15	3.41	3.5
Collected Date		3	--	--	--	--	--
Collected Time		937	--	--	--	--	--
pH at 25 Degrees C	Std. Units	--	7	7.1	7	7.8	--
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	760	800
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	<3.8	<4.6
Iron, dissolved	ug/L	--	--	--	--	34000	41000
Manganese, dissolved	ug/L	--	--	--	--	13000	13000
Molybdenum, dissolved	ug/L	--	--	--	--	66	41
Total Alkalinity as CaCO3	mg/L	--	--	--	--	760	800
Iron, total	ug/L	--	--	--	--	34000	40000
Magnesium, total	ug/L	--	--	--	--	63000	68000
Manganese, total	ug/L	--	--	--	--	12000	13000
Potassium, total	ug/L	--	--	--	--	4100	4000
Sodium, total	ug/L	--	--	--	--	45000	50000
Lithium, dissolved	ug/L	--	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-301

Number of Sampling Dates:

25

Parameter Name	Units	4/19/2021	10/13/2021	4/6/2022	4/26/2023	8/3/2023	10/3/2023
Boron	ug/L	9600	7300	11000	5100	5600	5200
Calcium	mg/L	240	260	260	200	160	150
Chloride	mg/L	18	19	19	26	16	15
Fluoride	mg/L	0.58	<0.28	<0.22	<1.5	<0.38	0.38
Field pH	Std. Units	7.03	7.01	6.96	6.83	6.87	6.76
Sulfate	mg/L	240	630	550	910	810	770
Total Dissolved Solids	mg/L	1200	1500	1300	1900	1600	1600
Antimony	ug/L	<1.1	<1.1	<0.69	<4	<1	<1
Arsenic	ug/L	61	66	80	2.1	9.8	3.8
Barium	ug/L	560	170	190	67	79	33
Beryllium	ug/L	<0.27	<0.27	<0.27	<1.3	<0.33	<0.33
Cadmium	ug/L	0.066	0.098	0.19	0.54	0.12	<0.1
Chromium	ug/L	<1.1	<1.1	<1.1	<4.4	<1.1	<1.1
Cobalt	ug/L	0.81	0.74	0.7	4.8	8.8	12
Lead	ug/L	<0.21	<0.21	<0.24	<0.96	0.51	<0.24
Lithium	ug/L	10	11	12	<10	11	13
Mercury	ug/L	<0.15	--	<0.11	<0.14	<0.14	<0.14
Molybdenum	ug/L	46	47	55	29	73	65
Selenium	ug/L	1.3	0.97	<0.96	<5.6	<5.6	<1.4
Thallium	ug/L	1	<0.26	<0.26	<1	1.5	<0.26
Total Radium	pCi/L	1.02	0.97	1.69	0.0545	--	0.154
Radium-226	pCi/L	0.774	0.406	0.719	0.00695	--	0.012
Radium-228	pCi/L	0.247	0.564	0.973	0.0475	--	0.142
Collected By		--	--	--	--	--	--
Field Oxidation Potential	mV	-162.4	-142.8	-156.9	48.6	-41.4	-90.4
Field Specific Conductance	umhos/cm	1760	1858	1982	2584	2261	2278
Field Temperature	deg C	12.3	13.6	12.3	11.7	12.2	12.9
Groundwater Elevation	feet	522.87	519.4	522.99	524.21	518.33	518.33
Oxygen, Dissolved	mg/L	1.61	0.17	0.13	0.2	0.14	0.35
Turbidity	NTU	3.82	14.1	21	9.39	34.67	5.9
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	7.1	7	7.1	7	7.1	7.8
Bicarbonate Alkalinity as CaCO3	mg/L	720	650	740	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	<4.6	--	--	--
Iron, dissolved	ug/L	39000	39000	40000	340	--	--
Manganese, dissolved	ug/L	14000	16000	22000	--	--	--
Molybdenum, dissolved	ug/L	44	49	53	--	--	--
Total Alkalinity as CaCO3	mg/L	720	650	740	--	--	--
Iron, total	ug/L	41000	38000	43000	--	5800	8200
Magnesium, total	ug/L	75000	72000	78000	--	--	--
Manganese, total	ug/L	15000	15000	19000	--	--	--
Potassium, total	ug/L	3700	3300	3700	--	--	--
Sodium, total	ug/L	63000	110000	130000	--	--	--
Lithium, dissolved	ug/L	--	10	13	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-301

Number of Sampling Dates:

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Parameter Name	Units	4/24/2024
Boron	ug/L	5600
Calcium	mg/L	180
Chloride	mg/L	15
Fluoride	mg/L	<0.38
Field pH	Std. Units	6.63
Sulfate	mg/L	930
Total Dissolved Solids	mg/L	1700
Antimony	ug/L	<1
Arsenic	ug/L	7.1
Barium	ug/L	38
Beryllium	ug/L	<0.33
Cadmium	ug/L	<0.1
Chromium	ug/L	<1.2
Cobalt	ug/L	10
Lead	ug/L	<0.26
Lithium	ug/L	14
Mercury	ug/L	<0.11
Molybdenum	ug/L	64
Selenium	ug/L	<1.4
Thallium	ug/L	<0.57
Total Radium	pCi/L	0.2
Radium-226	pCi/L	0.0765
Radium-228	pCi/L	0.124
Collected By		--
Field Oxidation Potential	mV	-62.8
Field Specific Conductance	umhos/cm	2450
Field Temperature	deg C	12.1
Groundwater Elevation	feet	521.23
Oxygen, Dissolved	mg/L	0.21
Turbidity	NTU	16.54
Collected Date		--
Collected Time		--
pH at 25 Degrees C	Std. Units	6.9
Bicarbonate Alkalinity as CaCO3	mg/L	--
Carbonate Alkalinity as CaCO3	mg/L	--
Iron, dissolved	ug/L	--
Manganese, dissolved	ug/L	--
Molybdenum, dissolved	ug/L	--
Total Alkalinity as CaCO3	mg/L	--
Iron, total	ug/L	18000
Magnesium, total	ug/L	--
Manganese, total	ug/L	--
Potassium, total	ug/L	--
Sodium, total	ug/L	--
Lithium, dissolved	ug/L	--

Single Location

Name: IPL - Burlington

Location ID:

MW-302

Number of Sampling Dates:

26

Parameter Name	Units	4/20/2016	6/6/2016	8/16/2016	10/3/2016	1/10/2017	4/3/2017
Boron	ug/L	8570	8400	9050	9500	9590	10100
Calcium	mg/L	242	243	231	251	225	232
Chloride	mg/L	18.3	15.2	16.1	15.4	15.2	16.6
Fluoride	mg/L	0.11	<0.073	0.08	0.086	<0.027	<0.1
Field pH	Std. Units	8.17	8.06	8.3	8.24	8.22	8.71
Sulfate	mg/L	666	525	669	579	536	540
Total Dissolved Solids	mg/L	1040	1140	988	977	969	945
Antimony	ug/L	0.14	0.15	<0.058	0.096	<0.058	0.043
Arsenic	ug/L	71.3	68.4	64.1	73.5	64.9	49.1
Barium	ug/L	430	476	361	446	355	356
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.023
Cadmium	ug/L	0.043	<0.029	<0.029	<0.029	<0.029	<0.018
Chromium	ug/L	<0.34	<0.34	0.45	<0.34	0.46	0.15
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.19
Lead	ug/L	0.21	<0.19	<0.19	<0.19	<0.19	0.058
Lithium	ug/L	60.5	69.6	37.6	64.2	62.6	57.3
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046
Molybdenum	ug/L	85.8	84.4	92.5	105	104	105
Selenium	ug/L	0.3	0.22	0.27	0.2	<0.18	0.24
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.04
Total Radium	pCi/L	1.82	1.11	0.202	1.24	1.59	1.13
Radium-226	pCi/L	0	0.392	0	0.803	0.604	0.639
Radium-228	pCi/L	1.82	0.715	0.202	0.439	0.987	0.494
Collected By		--	0	0	--	0	0
Field Oxidation Potential	mV	-181.1	-147	-167.1	-194.3	-182.6	-227.8
Field Specific Conductance	umhos/cm	1032	2053	34.4	2202	2167	2037
Field Temperature	deg C	12.7	12.7	13.6	13.8	13.7	13.2
Groundwater Elevation	feet	521.91	521.21	521.35	527.54	525.5	522.84
Oxygen, Dissolved	mg/L	0.1	0.8	9.35	0.39	0.21	0.12
Turbidity	NTU	10.65	2.56	0.19	1.36	0.47	1.99
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	7.8	7.8	7.6	7.8	7.9	8
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-302

Number of Sampling Dates:

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Parameter Name	Units	6/12/2017	8/15/2017	10/17/2017	5/9/2018	8/13/2018	10/9/2018
Boron	ug/L	10700	9450	10000	10200	10000	10400
Calcium	mg/L	216	225	231	231	210	219
Chloride	mg/L	15	15.7	16.4	14.1	14.7	13.5
Fluoride	mg/L	<0.1	<0.1	0.11	0.11	<0.063	<0.19
Field pH	Std. Units	8.06	8.38	8.72	8.19	9.32	7.89
Sulfate	mg/L	552	512	541	553	542	658
Total Dissolved Solids	mg/L	937	989	951	1080	1000	1030
Antimony	ug/L	0.04	0.16	--	<0.026	<0.15	0.082
Arsenic	ug/L	72	58.5	--	56.2	49.6	76.4
Barium	ug/L	370	348	--	363	340	180
Beryllium	ug/L	<0.012	0.012	--	<0.012	<0.12	<0.089
Cadmium	ug/L	0.021	<0.018	--	0.037	<0.07	0.04
Chromium	ug/L	0.11	0.31	--	0.22	0.33	0.097
Cobalt	ug/L	0.24	0.24	--	0.19	0.15	0.18
Lead	ug/L	0.064	0.22	--	0.17	<0.12	<0.13
Lithium	ug/L	60.7	56.9	--	65.4	61.4	57.8
Mercury	ug/L	<0.046	<0.046	--	<0.09	--	<0.09
Molybdenum	ug/L	131	113	--	118	121	122
Selenium	ug/L	0.23	0.24	--	0.25	0.22	0.23
Thallium	ug/L	0.078	0.41	--	<0.036	--	<0.099
Total Radium	pCi/L	1.84	1.2	--	1.51	1.53	2.15
Radium-226	pCi/L	0.713	0.238	--	0.621	0.443	1.1
Radium-228	pCi/L	1.13	0.962	--	0.886	1.09	1.05
Collected By		0	0	0	--	--	--
Field Oxidation Potential	mV	-154.4	-179.2	-49.7	-217.2	-237	-198
Field Specific Conductance	umhos/cm	833	1752	1165	1268	1226	1334
Field Temperature	deg C	12.94	13.7	13.9	13	14.9	15.2
Groundwater Elevation	feet	522.84	519.39	522.2	525.81	519.87	528.08
Oxygen, Dissolved	mg/L	0.13	0.18	0.09	1	0.15	0.3
Turbidity	NTU	0.59	0.25	2.04	2.25	3.75	6.48
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	7.6	7.8	8	7.9	8	7.7
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-302

Number of Sampling Dates:

26

Parameter Name	Units	3/12/2019	4/3/2019	10/10/2019	6/3/2020	10/16/2020	3/1/2021
Boron	ug/L	--	12000	11000	13000	11000	--
Calcium	mg/L	--	220	220	210	200	--
Chloride	mg/L	--	13	11	12	10	--
Fluoride	mg/L	--	0.37	<0.23	<0.23	<0.23	--
Field pH	Std. Units	6.94	8.7	7.49	7.88	7.87	7.95
Sulfate	mg/L	--	510	510	490	460	--
Total Dissolved Solids	mg/L	--	1000	960	1000	910	--
Antimony	ug/L	--	<0.53	<0.53	<0.58	<0.51	--
Arsenic	ug/L	--	53	73	110	76	--
Barium	ug/L	--	320	260	340	250	--
Beryllium	ug/L	--	<0.27	<0.27	<0.27	<0.27	--
Cadmium	ug/L	--	<0.077	<0.039	0.045	0.11	--
Chromium	ug/L	--	<0.98	<0.98	<1.1	<1.1	--
Cobalt	ug/L	--	0.19	0.23	0.21	0.26	--
Lead	ug/L	--	0.58	<0.27	<0.27	0.17	--
Lithium	ug/L	59.9	56	57	55	64	--
Mercury	ug/L	--	<0.1	--	<0.1	<0.1	--
Molybdenum	ug/L	123	100	100	140	130	--
Selenium	ug/L	--	<1	<1	<1	1.1	--
Thallium	ug/L	--	<0.27	--	<0.26	--	--
Total Radium	pCi/L	--	0.872	0.644	0.626/0.626	0.245	--
Radium-226	pCi/L	--	0.362	0.374	0.263/0.263	0.245	--
Radium-228	pCi/L	--	0.51	0.27	<0.394/0.363	-0.113	--
Collected By		0	--	--	--	--	--
Field Oxidation Potential	mV	-70.3	-215.8	-186.8	36.7	-237.1	-236.9
Field Specific Conductance	umhos/cm	792	1164	1249	1245	1168	1101
Field Temperature	deg C	12.16	11.41	14.46	12.9	12.9	12.3
Groundwater Elevation	feet	522.83	528.21	--	523.98	518.94	520.21
Oxygen, Dissolved	mg/L	2.68	0.58	0.28	0.18	0.08	0.11
Turbidity	NTU	22.1	18.8	1.16	25.27	0.07	2.7
Collected Date		3	--	--	--	--	--
Collected Time		1028	--	--	--	--	--
pH at 25 Degrees C	Std. Units	--	8.1	7.7	7.6	8.2	--
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	240	190
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	<3.8	<4.2
Iron, dissolved	ug/L	--	--	--	--	3200	2000
Manganese, dissolved	ug/L	--	--	--	--	1600	1300
Molybdenum, dissolved	ug/L	--	--	--	--	120	130
Total Alkalinity as CaCO3	mg/L	--	--	--	--	240	190
Iron, total	ug/L	--	--	--	--	2900	2400
Magnesium, total	ug/L	--	--	--	--	18000	15000
Manganese, total	ug/L	--	--	--	--	1400	1300
Potassium, total	ug/L	--	--	--	--	12000	13000
Sodium, total	ug/L	--	--	--	--	24000	27000
Lithium, dissolved	ug/L	--	--	--	--	64	66

Single Location

Name: IPL - Burlington

Location ID:

MW-302

Number of Sampling Dates:

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Parameter Name	Units	4/19/2021	10/12/2021	2/22/2022	4/5/2022	4/26/2023	8/1/2023
Boron	ug/L	11000	10000	--	11000	5600	4600
Calcium	mg/L	200	160	--	190	370	250
Chloride	mg/L	10	12	--	12	21	22
Fluoride	mg/L	<0.28	<0.28	--	<0.22	<1.5	<0.38
Field pH	Std. Units	8.15	8.28	8.16	8.05	6.11	6.31
Sulfate	mg/L	410	280	--	310	1300	750
Total Dissolved Solids	mg/L	860	680	--	770	1900	1100
Antimony	ug/L	<1.1	<1.1	--	<0.69	<1	<1
Arsenic	ug/L	75	100	94	86	3.1	15
Barium	ug/L	320	270	--	320	38	54
Beryllium	ug/L	<0.27	<0.27	--	<0.27	1.1	<0.33
Cadmium	ug/L	0.089	0.12	--	0.055	0.89	0.36
Chromium	ug/L	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	0.21	0.27	--	0.21	78	41
Lead	ug/L	<0.21	<0.21	--	<0.24	0.37	0.77
Lithium	ug/L	64	64	--	78	66	51
Mercury	ug/L	<0.15	--	--	<0.11	<0.14	<0.14
Molybdenum	ug/L	130	91	--	89	26	58
Selenium	ug/L	1.4	<0.96	--	<0.96	<5.6	2.3
Thallium	ug/L	1.2	<0.26	--	1.8	<1	<0.26
Total Radium	pCi/L	0.906	1.22	--	0.687	0.438	--
Radium-226	pCi/L	0.493	0.605	--	0.401	0.106	--
Radium-228	pCi/L	0.413	0.611	--	0.286	0.332	--
Collected By		--	--	--	--	--	--
Field Oxidation Potential	mV	-225.8	-193.7	207.4	-198.6	21.4	4.5
Field Specific Conductance	umhos/cm	1169	1043	1082	989	2283	1535
Field Temperature	deg C	12	13.8	12.5	12.3	12.4	11
Groundwater Elevation	feet	522.27	518.75	519.03	522.34	525.56	518.19
Oxygen, Dissolved	mg/L	0.07	0.18	0.13	0.07	0.1	0.04
Turbidity	NTU	4.07	31.2	2.1	9	7.19	18.62
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	8.2	7.9	--	8.1	6.2	6.4
Bicarbonate Alkalinity as CaCO3	mg/L	220	560	--	310	--	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	--	<4.6	--	--
Iron, dissolved	ug/L	1600	2900	--	1300	3700	--
Manganese, dissolved	ug/L	1100	1700	--	1000	--	--
Molybdenum, dissolved	ug/L	120	110	--	89	--	--
Total Alkalinity as CaCO3	mg/L	220	560	--	310	--	--
Iron, total	ug/L	2000	3600	--	1200	--	19000
Magnesium, total	ug/L	15000	17000	--	14000	--	--
Manganese, total	ug/L	1200	1700	--	930	--	--
Potassium, total	ug/L	13000	12000	--	14000	--	--
Sodium, total	ug/L	30000	28000	--	33000	--	--
Lithium, dissolved	ug/L	59	63	--	80	--	--

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Parameter Name	Units	10/3/2023	4/24/2024
Boron	ug/L	1600	2000
Calcium	mg/L	120	170
Chloride	mg/L	3.8	13
Fluoride	mg/L	<0.38	<0.38
Field pH	Std. Units	6.65	6.53
Sulfate	mg/L	220	390
Total Dissolved Solids	mg/L	530	780
Antimony	ug/L	<1	<1
Arsenic	ug/L	3.8	4.6
Barium	ug/L	74	53
Beryllium	ug/L	<0.33	<0.33
Cadmium	ug/L	0.19	<0.1
Chromium	ug/L	<1.1	<1.2
Cobalt	ug/L	7.6	6.6
Lead	ug/L	<0.24	<0.26
Lithium	ug/L	40	49
Mercury	ug/L	<0.14	<0.11
Molybdenum	ug/L	180	210
Selenium	ug/L	<1.4	<1.4
Thallium	ug/L	<0.26	<0.57
Total Radium	pCi/L	0.233	0.797
Radium-226	pCi/L	0.0945	0.12
Radium-228	pCi/L	0.138	0.677
Collected By		--	--
Field Oxidation Potential	mV	-53.4	-20.1
Field Specific Conductance	umhos/cm	797	1126
Field Temperature	deg C	12.6	11.3
Groundwater Elevation	feet	518.19	520.85
Oxygen, Dissolved	mg/L	0.1	0.21
Turbidity	NTU	6.25	14.5
Collected Date		--	--
Collected Time		--	--
pH at 25 Degrees C	Std. Units	7.7	6.8
Bicarbonate Alkalinity as CaCO3	mg/L	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--
Iron, dissolved	ug/L	--	--
Manganese, dissolved	ug/L	--	--
Molybdenum, dissolved	ug/L	--	--
Total Alkalinity as CaCO3	mg/L	--	--
Iron, total	ug/L	3400	8800
Magnesium, total	ug/L	--	--
Manganese, total	ug/L	--	--
Potassium, total	ug/L	--	--
Sodium, total	ug/L	--	--
Lithium, dissolved	ug/L	--	--

Single Location

Name: IPL - Burlington

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Number of Sampling Dates:

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Parameter Name	Units	9/9/2020	10/16/2020	3/1/2021	4/19/2021	10/12/2021
Boron	ug/L	11000	11000	--	9400	9000
Calcium	mg/L	120	130	--	140	140
Chloride	mg/L	27	23	--	17	20
Fluoride	mg/L	<0.23	<0.23	--	<0.28	<0.28
Field pH	Std. Units	7.31	7.26	7.2	7.34	7.69
Sulfate	mg/L	340	330	--	310	410
Total Dissolved Solids	mg/L	730	710	--	710	780
Antimony	ug/L	<0.51	1.7	--	<1.1	<1.1
Arsenic	ug/L	2.9	2.9	--	2.1	1.7
Barium	ug/L	270	280	--	310	230
Beryllium	ug/L	<0.27	<0.27	--	<0.27	<0.27
Cadmium	ug/L	<0.049	0.065	--	<0.051	<0.051
Chromium	ug/L	<1.1	<1.1	--	<1.1	<1.1
Cobalt	ug/L	0.12	0.11	--	0.11	<0.19
Lead	ug/L	0.11	<0.11	--	<0.21	<0.21
Lithium	ug/L	11	11	11	9.6	12
Mercury	ug/L	<0.1	<0.1	--	<0.15	--
Molybdenum	ug/L	120	110	87	95	93
Selenium	ug/L	<1	<1	--	<0.96	<0.96
Thallium	ug/L	<0.26	--	--	<0.26	<0.26
Total Radium	pCi/L	1.15	0.785	--	1.4	2.08
Radium-226	pCi/L	0.421	-0.0548	--	0.641	0.854
Radium-228	pCi/L	0.727	0.785	--	0.755	1.22
Field Oxidation Potential	mV	-142	-175.3	-165.6	-150.2	-115.3
Field Specific Conductance	umhos/cm	1013	951	975	1026	1124
Field Temperature	deg C	13.3	13.1	12.5	12.7	13.6
Groundwater Elevation	feet	519.71	518.79	520.14	522.25	518.64
Oxygen, Dissolved	mg/L	0.27	0.19	0.16	0.18	0.26
Turbidity	NTU	0.01	3.82	0.48	2.94	11.2
pH at 25 Degrees C	Std. Units	7.4	8	--	7.4	7.3
Bicarbonate Alkalinity as CaCO3	mg/L	--	150	180	190	200
Carbonate Alkalinity as CaCO3	mg/L	--	<3.8	<4.2	<2.3	<4.6
Iron, dissolved	ug/L	--	8600	8600	7500	6600
Manganese, dissolved	ug/L	--	3800	3500	3500	3300
Molybdenum, dissolved	ug/L	--	120	90	89	99
Total Alkalinity as CaCO3	mg/L	--	150	180	190	200
Iron, total	ug/L	--	8400	8300	8000	6900
Magnesium, total	ug/L	--	28000	32000	34000	33000
Manganese, total	ug/L	--	3600	3300	3600	3500
Potassium, total	ug/L	--	3600	3600	3500	3600
Sodium, total	ug/L	--	34000	32000	33000	51000
Lithium, dissolved	ug/L	--	--	12	9.1	12

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Parameter Name	Units	4/5/2022	10/20/2022	4/26/2023	8/1/2023	10/3/2023
Boron	ug/L	15000	1600	--	--	--
Calcium	mg/L	160	160	--	--	--
Chloride	mg/L	21	13	--	--	--
Fluoride	mg/L	<0.22	<0.22	--	--	--
Field pH	Std. Units	7.25	7.09	7.52	7.78	7.11
Sulfate	mg/L	450	170	--	--	--
Total Dissolved Solids	mg/L	910	630	--	--	--
Antimony	ug/L	<0.69	<0.69	--	--	--
Arsenic	ug/L	3	2.3	--	--	--
Barium	ug/L	310	420	--	--	--
Beryllium	ug/L	<0.27	<0.27	--	--	--
Cadmium	ug/L	0.087	<0.055	--	--	--
Chromium	ug/L	<1.1	<1.1	--	--	--
Cobalt	ug/L	0.2	<0.19	--	--	--
Lead	ug/L	<0.24	<0.24	--	--	--
Lithium	ug/L	22	13	<2.5	3.3	4.6
Mercury	ug/L	<0.11	<0.11	--	--	--
Molybdenum	ug/L	120	36	3.4	7.4	8.5
Selenium	ug/L	<0.96	<0.96	--	--	--
Thallium	ug/L	<0.26	<0.26	--	--	--
Total Radium	pCi/L	2.14	2.65	--	--	--
Radium-226	pCi/L	0.694	0.82	--	--	--
Radium-228	pCi/L	1.45	1.83	--	--	--
Field Oxidation Potential	mV	-153.2	-115	-98.2	-151.4	-46.7
Field Specific Conductance	umhos/cm	1108	1090	466.9	458.3	467.3
Field Temperature	deg C	12.7	16.7	7.9	8.3	13.9
Groundwater Elevation	feet	522.28	506.87	525.51	518.09	518.12
Oxygen, Dissolved	mg/L	0.12	0	0.37	0.29	0.46
Turbidity	NTU	5	5	0.02	4.13	8.28
pH at 25 Degrees C	Std. Units	7.3	7.1	--	--	--
Bicarbonate Alkalinity as CaCO3	mg/L	250	430	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	--	--	--
Iron, dissolved	ug/L	8400	11000	2800	--	--
Manganese, dissolved	ug/L	3800	3700	--	--	--
Molybdenum, dissolved	ug/L	120	36	--	--	--
Total Alkalinity as CaCO3	mg/L	250	430	--	--	--
Iron, total	ug/L	8800	11000	--	4000	3900
Magnesium, total	ug/L	34000	33000	--	--	--
Manganese, total	ug/L	4000	4300	--	--	--
Potassium, total	ug/L	4400	6900	--	--	--
Sodium, total	ug/L	70000	14000	--	--	--
Lithium, dissolved	ug/L	21	14	--	--	--

Single Location

Name: IPL - Burlington

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Parameter Name	Units	4/24/2024
Boron	ug/L	--
Calcium	mg/L	--
Chloride	mg/L	--
Fluoride	mg/L	--
Field pH	Std. Units	7.2
Sulfate	mg/L	--
Total Dissolved Solids	mg/L	--
Antimony	ug/L	--
Arsenic	ug/L	--
Barium	ug/L	--
Beryllium	ug/L	--
Cadmium	ug/L	--
Chromium	ug/L	--
Cobalt	ug/L	--
Lead	ug/L	--
Lithium	ug/L	5.7
Mercury	ug/L	--
Molybdenum	ug/L	12
Selenium	ug/L	--
Thallium	ug/L	--
Total Radium	pCi/L	--
Radium-226	pCi/L	--
Radium-228	pCi/L	--
Field Oxidation Potential	mV	-103.2
Field Specific Conductance	umhos/cm	489.9
Field Temperature	deg C	10.6
Groundwater Elevation	feet	520.78
Oxygen, Dissolved	mg/L	0.36
Turbidity	NTU	13.13
pH at 25 Degrees C	Std. Units	--
Bicarbonate Alkalinity as CaCO3	mg/L	--
Carbonate Alkalinity as CaCO3	mg/L	--
Iron, dissolved	ug/L	--
Manganese, dissolved	ug/L	--
Molybdenum, dissolved	ug/L	--
Total Alkalinity as CaCO3	mg/L	--
Iron, total	ug/L	4000
Magnesium, total	ug/L	--
Manganese, total	ug/L	--
Potassium, total	ug/L	--
Sodium, total	ug/L	--
Lithium, dissolved	ug/L	--

Single Location

Name: IPL - Burlington

Location ID:

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Number of Sampling Dates:

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Parameter Name	Units	4/20/2016	6/6/2016	8/16/2016	10/3/2016	1/10/2017	4/3/2017
Boron	ug/L	25800	27500	26700	26100	25400	28800
Calcium	mg/L	86.3	79.9	81.3	87.8	71.2	88.6
Chloride	mg/L	17	16	16.3	16.1	14.4	15.2
Fluoride	mg/L	0.43	0.16	0.28	0.28	0.18	0.2
Field pH	Std. Units	7.39	7.48	7.57	7.56	7.64	7.57
Sulfate	mg/L	34.6	23.3	14.8	6.6	34.1	24.1
Total Dissolved Solids	mg/L	450	441	440	447	404	454
Antimony	ug/L	0.55	0.12	<0.058	0.09	<0.058	0.029
Arsenic	ug/L	38.6	26.5	44.5	33	12.8	21.7
Barium	ug/L	361	250	230	237	267	334
Beryllium	ug/L	0.9	<0.08	<0.08	<0.08	<0.08	0.019
Cadmium	ug/L	0.58	<0.029	<0.029	<0.029	<0.029	<0.018
Chromium	ug/L	23.4	0.48	0.4	<0.34	0.78	0.2
Cobalt	ug/L	7.8	0.56	0.55	0.64	<0.5	0.38
Lead	ug/L	21	<0.19	<0.19	<0.19	0.21	0.047
Lithium	ug/L	35.8	34.6	24	30.3	48.8	46.6
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046
Molybdenum	ug/L	67.4	55.4	39.4	34.2	52.8	51.7
Selenium	ug/L	2.2	<0.18	0.3	0.22	0.26	0.28
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.063
Total Radium	pCi/L	2.18	0.522	1.59	0.464	1.98	1.53
Radium-226	pCi/L	0.866	0	0.269	0.393	0.677	0.542
Radium-228	pCi/L	1.31	0.522	1.32	0.0706	1.3	0.99
Collected By		--	0	0	--	0	0
Field Oxidation Potential	mV	-101.6	-113	-184.4	-164.5	-150.6	-163.9
Field Specific Conductance	umhos/cm	513	1009	1271	1175	1024	1100
Field Temperature	deg C	13.8	13.9	14.2	14.8	14.3	14.1
Groundwater Elevation	feet	521.76	521.26	521.31	527.57	525.56	522.81
Oxygen, Dissolved	mg/L	0.08	1.02	1.31	0.48	0.1	0.1
Turbidity	NTU	487.4	2.45	0.24	3.76	3.85	4.42
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	7.2	7.4	7.2	7.3	7.6	7.6
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

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Number of Sampling Dates:

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Parameter Name	Units	6/12/2017	8/15/2017	10/17/2017	5/9/2018	8/13/2018	10/10/2018
Boron	ug/L	26600	24100	25400	22900	24500	24500
Calcium	mg/L	105	79.4	84.5	87	85.9	87.8
Chloride	mg/L	17.3	15.3	15.3	15.1	15.7	16.3
Fluoride	mg/L	0.22	0.24	0.25	0.22	0.44	0.27
Field pH	Std. Units	7.24	6.97	8.59	7.51	8.03	7.1
Sulfate	mg/L	3.9	46	42.1	128	78.7	31.8
Total Dissolved Solids	mg/L	557	434	436	502	520	462
Antimony	ug/L	<0.026	0.13	--	<0.026	<0.15	<0.078
Arsenic	ug/L	48.1	30.9	--	7.9	52	29.8
Barium	ug/L	386	281	--	412	354	415
Beryllium	ug/L	0.018	0.02	--	<0.012	<0.12	<0.089
Cadmium	ug/L	<0.018	0.018	--	0.028	<0.07	<0.033
Chromium	ug/L	0.43	0.38	--	0.27	0.29	0.69
Cobalt	ug/L	0.68	0.42	--	0.31	0.46	0.62
Lead	ug/L	<0.033	0.14	--	0.21	0.22	0.54
Lithium	ug/L	26.2	45.1	--	50.7	42.1	35.8
Mercury	ug/L	<0.046	<0.046	--	<0.09	--	<0.09
Molybdenum	ug/L	33.8	73.1	--	75.4	77.9	56.5
Selenium	ug/L	0.3	0.23	--	0.19	0.24	0.33
Thallium	ug/L	<0.036	0.13	--	<0.036	--	<0.099
Total Radium	pCi/L	1.86	2.19	--	1.64	1.79	1.91
Radium-226	pCi/L	0.734	1.37	--	0.677	0.462	0.997
Radium-228	pCi/L	1.13	0.821	--	0.965	1.33	0.913
Collected By		0	0	0	--	--	--
Field Oxidation Potential	mV	-102.9	-132	21.3	-165.5	-153	-132
Field Specific Conductance	umhos/cm	599.8	887	612.6	535.7	748	774
Field Temperature	deg C	14.2	14.4	14.5	13.8	16.8	15.6
Groundwater Elevation	feet	522.8	519.3	522.23	525.8	519.78	528.78
Oxygen, Dissolved	mg/L	0.2	0.07	0.13	0.11	0.24	1
Turbidity	NTU	2.57	0.46	2.79	0.97	14.26	17.3
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	6.9	7.2	7.3	7.4	7.3	7.1
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

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Number of Sampling Dates:

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Parameter Name	Units	3/12/2019	4/3/2019	10/10/2019	6/3/2020	10/16/2020
Boron	ug/L	--	22000	21000	23000	19000
Calcium	mg/L	--	86	91	120	120
Chloride	mg/L	--	15	16	18	17
Fluoride	mg/L	--	0.43	<0.23	0.27	<0.23
Field pH	Std. Units	6.46	7.79	7.13	7.12	7.19
Sulfate	mg/L	--	120	84	100	190
Total Dissolved Solids	mg/L	--	540	420	640	630
Antimony	ug/L	--	<0.53	<0.53	<0.58	0.57
Arsenic	ug/L	--	6.4	17	18	14
Barium	ug/L	--	440	440	610	480
Beryllium	ug/L	--	<0.27	<0.27	<0.27	<0.27
Cadmium	ug/L	--	<0.077	<0.039	<0.039	<0.049
Chromium	ug/L	--	<0.98	<0.98	<1.1	<1.1
Cobalt	ug/L	--	0.36	0.45	0.56	0.49
Lead	ug/L	--	0.49	<0.27	0.29	0.18
Lithium	ug/L	51.6	52	46	48	59
Mercury	ug/L	--	<0.1	--	<0.1	<0.1
Molybdenum	ug/L	--	110	76	66	84
Selenium	ug/L	--	<1	<1	<1	<1
Thallium	ug/L	--	<0.27	--	<0.26	--
Total Radium	pCi/L	--	1.26	1.04	0.892/0.892	1.26
Radium-226	pCi/L	--	0.552	0.728	0.804/0.804	0.317
Radium-228	pCi/L	--	0.703	0.316	<0.511/0.0877	0.944
Collected By		0	--	--	--	--
Field Oxidation Potential	mV	-68.1	-122.8	-161	58.1	-185.6
Field Specific Conductance	umhos/cm	549	711	767	934	902
Field Temperature	deg C	13.62	12.63	14.91	14.8	13.7
Groundwater Elevation	feet	522.74	528.22	--	523.97	518.78
Oxygen, Dissolved	mg/L	2.38	0.67	0.26	0.18	0.12
Turbidity	NTU	19.4	18.2	5.36	16.03	2.03
Collected Date		3	--	--	--	--
Collected Time		11	--	--	--	--
pH at 25 Degrees C	Std. Units	--	7.4	7.4	7.2	8
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	290
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	<3.8
Iron, dissolved	ug/L	--	--	--	--	8700
Manganese, dissolved	ug/L	--	--	--	--	3900
Molybdenum, dissolved	ug/L	--	--	--	--	85
Total Alkalinity as CaCO3	mg/L	--	--	--	--	290
Iron, total	ug/L	--	--	--	--	8500
Magnesium, total	ug/L	--	--	--	--	21000
Manganese, total	ug/L	--	--	--	--	3700
Potassium, total	ug/L	--	--	--	--	22000
Sodium, total	ug/L	--	--	--	--	30000
Lithium, dissolved	ug/L	--	--	--	--	59

Single Location

Name: IPL - Burlington

Location ID:

MW-303

Number of Sampling Dates:

25

Parameter Name	Units	3/1/2021	4/19/2021	10/13/2021	4/5/2022	4/26/2023	8/1/2023
Boron	ug/L	--	16000	17000	22000	3200	2600
Calcium	mg/L	--	140	130	140	85	100
Chloride	mg/L	--	15	17	16	25	27
Fluoride	mg/L	--	<0.28	<0.28	<0.22	<0.38	<0.38
Field pH	Std. Units	7.15	7.25	7.25	7.36	6.92	7.09
Sulfate	mg/L	--	250	250	310	180	150
Total Dissolved Solids	mg/L	--	670	610	650	430	430
Antimony	ug/L	--	<1.1	<1.1	<0.69	<1	<1
Arsenic	ug/L	--	15	14	5.7	4	12
Barium	ug/L	--	450	360	270	65	150
Beryllium	ug/L	--	<0.27	<0.27	<0.27	<0.33	<0.33
Cadmium	ug/L	--	<0.051	0.051	0.097	<0.1	<0.1
Chromium	ug/L	--	<1.1	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	--	0.42	0.42	0.35	1.3	1.4
Lead	ug/L	--	<0.21	<0.21	<0.24	<0.24	0.45
Lithium	ug/L	--	66	61	80	23	27
Mercury	ug/L	--	<0.15	--	<0.11	<0.14	<0.14
Molybdenum	ug/L	--	120	120	190	94	150
Selenium	ug/L	--	<0.96	<0.96	<0.96	<1.4	<1.4
Thallium	ug/L	--	<0.26	<0.26	<0.26	<0.26	<0.26
Total Radium	pCi/L	--	2.21	0.678	1.52	0.53	--
Radium-226	pCi/L	--	0.866	0.628	0.795	0.0889	--
Radium-228	pCi/L	--	1.35	0.0509	0.723	0.441	--
Collected By		--	--	--	--	--	--
Field Oxidation Potential	mV	-174.2	-144.8	-118.4	-155.8	757	-100.4
Field Specific Conductance	umhos/cm	916	995	843	845	25.3	762
Field Temperature	deg C	13.6	13.2	13.9	12.7	12.6	11.5
Groundwater Elevation	feet	520.09	522.13	518.58	522.2	525.42	517.91
Oxygen, Dissolved	mg/L	0.12	0.19	0.16	0.1	0.13	0.03
Turbidity	NTU	1.82	4.35	13.6	21	0.02	11.58
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	--	7.3	7.3	7.5	7.1	7.1
Bicarbonate Alkalinity as CaCO3	mg/L	210	280	270	210	--	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	<4.6	<4.6	--	--
Iron, dissolved	ug/L	7600	7500	7000	4400	750	--
Manganese, dissolved	ug/L	3400	3800	4000	3400	--	--
Molybdenum, dissolved	ug/L	120	110	130	180	--	--
Total Alkalinity as CaCO3	mg/L	210	280	270	210	--	--
Iron, total	ug/L	7600	7900	6900	4600	--	8100
Magnesium, total	ug/L	20000	22000	20000	16000	--	--
Manganese, total	ug/L	3400	4000	4000	3500	--	--
Potassium, total	ug/L	22000	23000	18000	22000	--	--
Sodium, total	ug/L	33000	34000	28000	29000	--	--
Lithium, dissolved	ug/L	66	59	62	77	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-303

Number of Sampling Dates:

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Parameter Name	Units	10/3/2023	4/23/2024
Boron	ug/L	3700	8100
Calcium	mg/L	120	150
Chloride	mg/L	25	31
Fluoride	mg/L	<0.38	<0.38
Field pH	Std. Units	6.87	6.71
Sulfate	mg/L	190	340
Total Dissolved Solids	mg/L	590	740
Antimony	ug/L	<1	<1
Arsenic	ug/L	14	17
Barium	ug/L	120	170
Beryllium	ug/L	<0.33	<0.33
Cadmium	ug/L	0.18	<0.1
Chromium	ug/L	<1.1	<1.2
Cobalt	ug/L	1.7	1.7
Lead	ug/L	<0.24	<0.26
Lithium	ug/L	31	35
Mercury	ug/L	<0.14	<0.11
Molybdenum	ug/L	150	160
Selenium	ug/L	<1.4	<1.4
Thallium	ug/L	0.26	<0.57
Total Radium	pCi/L	0.594	0.418
Radium-226	pCi/L	0.186	0.266
Radium-228	pCi/L	0.408	0.152
Collected By		--	--
Field Oxidation Potential	mV	140.2	-82.5
Field Specific Conductance	umhos/cm	954	1165
Field Temperature	deg C	12.2	11.6
Groundwater Elevation	feet	518.06	520.89
Oxygen, Dissolved	mg/L	0.1	0.18
Turbidity	NTU	4.9	9.98
Collected Date		--	--
Collected Time		--	--
pH at 25 Degrees C	Std. Units	7.5	6.8
Bicarbonate Alkalinity as CaCO3	mg/L	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--
Iron, dissolved	ug/L	--	--
Manganese, dissolved	ug/L	--	--
Molybdenum, dissolved	ug/L	--	--
Total Alkalinity as CaCO3	mg/L	--	--
Iron, total	ug/L	11000	19000
Magnesium, total	ug/L	--	--
Manganese, total	ug/L	--	--
Potassium, total	ug/L	--	--
Sodium, total	ug/L	--	--
Lithium, dissolved	ug/L	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-304

Number of Sampling Dates:

25

Parameter Name	Units	4/20/2016	6/6/2016	8/16/2016	10/3/2016	1/9/2017	4/3/2017
Boron	ug/L	5020	5050	5050	4910	5350	5340
Calcium	mg/L	142	137	144	155	136	118
Chloride	mg/L	34.7	30	28.2	30.7	47.7	39.2
Fluoride	mg/L	0.092	<0.073	<0.027	0.072	<0.027	<0.1
Field pH	Std. Units	9.2	8.65	9.42	9.25	9.44	8.58
Sulfate	mg/L	397	324	383	431	330	263
Total Dissolved Solids	mg/L	706	678	718	721	651	593
Antimony	ug/L	0.77	0.77	0.76	0.51	0.8	0.63
Arsenic	ug/L	60	59.4	64.3	58.9	68.7	60
Barium	ug/L	112	127	115	130	117	131
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.036
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018
Chromium	ug/L	<0.34	<0.34	0.58	0.42	<0.34	0.16
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.13
Lead	ug/L	<0.19	<0.19	<0.19	<0.19	<0.19	<0.033
Lithium	ug/L	52.4	57.8	48.5	61	70.7	52.1
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046
Molybdenum	ug/L	101	105	118	131	121	90.6
Selenium	ug/L	<0.18	<0.18	0.23	0.24	0.24	0.31
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.068
Total Radium	pCi/L	1.26	0.659	1.1	1.16	0.455	0.742
Radium-226	pCi/L	0	0.0649	0.22	0.458	0.067	0.48
Radium-228	pCi/L	1.26	0.594	0.881	0.704	0.388	0.262
Collected By		--	0	0	--	0	0
Field Oxidation Potential	mV	-309.5	-153	-301	-251.4	-274.8	-260.1
Field Specific Conductance	umhos/cm	766	1455	1840	1712	1634	1427
Field Temperature	deg C	13.9	14	14.4	15.3	15	14.1
Groundwater Elevation	feet	521.78	521.28	521.37	527.57	525.62	522.87
Oxygen, Dissolved	mg/L	0.04	1.55	4.79	0.43	0.11	0.11
Turbidity	NTU	1.43	1.26	0.01	0.3	0	0.61
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	8.8	8.9	8.8	8.8	8.2	7.9
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-304

Number of Sampling Dates:

25

Parameter Name	Units	6/12/2017	8/15/2017	10/17/2017	5/9/2018	8/13/2018	10/10/2018
Boron	ug/L	5160	5370	5580	5140	5440	6180
Calcium	mg/L	90.1	97.2	103	107	102	88.5
Chloride	mg/L	35.2	30.2	46.5	58.1	25.9	50.3
Fluoride	mg/L	<0.1	<0.1	0.12	0.11	0.13	<0.19
Field pH	Std. Units	7.93	8.71	9.52	8.51	7.6	9.01
Sulfate	mg/L	211	216	248	273	188	271
Total Dissolved Solids	mg/L	519	501	540	657	551	537
Antimony	ug/L	0.51	0.88	--	0.75	0.3	0.77
Arsenic	ug/L	58.4	65.6	--	57.2	45.4	58.3
Barium	ug/L	126	84.7	--	115	140	92
Beryllium	ug/L	<0.012	<0.012	--	<0.012	<0.12	<0.089
Cadmium	ug/L	<0.018	<0.018	--	<0.018	<0.07	0.054
Chromium	ug/L	0.087	0.3	--	0.22	0.34	0.091
Cobalt	ug/L	0.11	0.1	--	0.098	<0.15	0.19
Lead	ug/L	<0.033	0.9	--	<0.033	<0.12	<0.13
Lithium	ug/L	44.1	51	--	63.8	34.3	82.4
Mercury	ug/L	<0.046	<0.046	--	<0.09	--	<0.09
Molybdenum	ug/L	67.4	66.8	--	126	74.9	113
Selenium	ug/L	0.19	0.26	--	0.24	0.21	0.26
Thallium	ug/L	<0.036	0.12	--	<0.036	--	<0.099
Total Radium	pCi/L	1.29	0.752	--	0.589	0.725	0.706
Radium-226	pCi/L	0.928	0.404	--	0.405	0.151	0.233
Radium-228	pCi/L	0.362	0.348	--	0.184	0.574	0.473
Collected By		0	0	0	--	--	--
Field Oxidation Potential	mV	-160.6	-231.3	5.9	-273	-202	-100.2
Field Specific Conductance	umhos/cm	512.5	971	756	906	836	780
Field Temperature	deg C	14.3	14.8	15.1	13.5	18.1	17.41
Groundwater Elevation	feet	522.9	519.23	522.32	525.85	519.81	528.82
Oxygen, Dissolved	mg/L	0.17	0.03	0.1	1.4	0.09	0.23
Turbidity	NTU	0.23	0.26	1.89	2.84	4.26	1.36
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	7.9	8.8	8.9	8.3	7.5	8.6
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-304

Number of Sampling Dates:

25

Parameter Name	Units	3/12/2019	4/3/2019	10/10/2019	6/3/2020	10/15/2020	3/1/2021
Boron	ug/L	--	6300	5100	6400	7400	--
Calcium	mg/L	--	72	140	150	150	--
Chloride	mg/L	--	39	25	21	21	--
Fluoride	mg/L	--	0.35	<0.23	<0.23	<0.23	--
Field pH	Std. Units	6.94	8.56	7.17	7.23	8.46	8.26
Sulfate	mg/L	--	140	220	250	420	--
Total Dissolved Solids	mg/L	--	460	710	750	820	--
Antimony	ug/L	--	0.66	<0.53	<0.58	0.52	--
Arsenic	ug/L	--	59	36	35	49	--
Barium	ug/L	--	90	210	220	170	--
Beryllium	ug/L	--	<0.27	<0.27	<0.27	<0.27	--
Cadmium	ug/L	--	<0.077	<0.039	<0.039	<0.049	--
Chromium	ug/L	--	<0.98	<0.98	<1.1	<4.4	--
Cobalt	ug/L	--	0.11	0.13	0.15	<0.36	--
Lead	ug/L	--	<0.27	<0.27	<0.27	<0.11	--
Lithium	ug/L	35.9	52	38	47	92	--
Mercury	ug/L	--	<0.1	--	0.11	<0.1	--
Molybdenum	ug/L	47.4	58	47	45	140	--
Selenium	ug/L	--	<1	<1	<1	<4	--
Thallium	ug/L	--	<0.27	--	<0.26	--	--
Total Radium	pCi/L	--	0.408	0.781	0.573/0.573	0.304	--
Radium-226	pCi/L	--	0.116	0.353	0.3/0.3	0.0765	--
Radium-228	pCi/L	--	0.292	0.428	<0.375/0.272	0.227	--
Collected By		0	--	--	--	--	--
Field Oxidation Potential	mV	-73.8	-216.7	-157.5	52.4	-282.6	-280.2
Field Specific Conductance	umhos/cm	460	658	934	1087	1062	971
Field Temperature	deg C	13.87	12.96	15.64	14.6	14.7	14.1
Groundwater Elevation	feet	522.8	528.27	--	524.02	518.69	520.15
Oxygen, Dissolved	mg/L	2.11	0.39	0.28	0.15	0.08	0.07
Turbidity	NTU	9.28	6.22	1.18	18.18	0.02	0.02
Collected Date		3	--	--	--	--	--
Collected Time		1141	--	--	--	--	--
pH at 25 Degrees C	Std. Units	--	8	7.5	7.4	8.4	--
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	130	130
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	<3.8	<2.6
Iron, dissolved	ug/L	--	--	--	--	720	1100
Manganese, dissolved	ug/L	--	--	--	--	440	760
Molybdenum, dissolved	ug/L	--	--	--	--	140	140
Total Alkalinity as CaCO3	mg/L	--	--	--	--	130	130
Iron, total	ug/L	--	--	--	--	660	1200
Magnesium, total	ug/L	--	--	--	--	3800	5200
Manganese, total	ug/L	--	--	--	--	380	750
Potassium, total	ug/L	--	--	--	--	14000	15000
Sodium, total	ug/L	--	--	--	--	51000	46000
Lithium, dissolved	ug/L	--	--	--	--	93	86

Single Location

Name: IPL - Burlington

Location ID:

MW-304

Number of Sampling Dates:

25

Parameter Name	Units	4/19/2021	10/13/2021	4/5/2022	4/26/2023	8/1/2023	10/3/2023
Boron	ug/L	7700	7600	12000	1400	7800	5800
Calcium	mg/L	110	130	130	100	240	430
Chloride	mg/L	18	23	27	26	27	14
Fluoride	mg/L	<0.28	<0.28	<0.22	<0.38	<0.38	<0.38
Field pH	Std. Units	8.32	7.53	8.08	7.03	6.45	6.55
Sulfate	mg/L	280	220	240	220	850	280
Total Dissolved Solids	mg/L	640	570	640	470	1300	570
Antimony	ug/L	<1.1	<1.1	<0.69	<1	<1	<4
Arsenic	ug/L	41	32	44	1.4	9.6	32
Barium	ug/L	180	160	140	57	58	160
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.33	<0.33	<1.3
Cadmium	ug/L	<0.051	<0.051	<0.055	<0.1	0.12	<0.4
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1	<1.1	<4.4
Cobalt	ug/L	<0.091	<0.19	<0.19	1.3	81	44
Lead	ug/L	<0.21	<0.21	<0.24	<0.24	0.45	0.97
Lithium	ug/L	75	60	74	63	160	500
Mercury	ug/L	<0.15	--	<0.11	<0.14	<0.14	<0.14
Molybdenum	ug/L	100	59	85	190	100	130
Selenium	ug/L	<0.96	<0.96	<0.96	<1.4	<1.4	<5.6
Thallium	ug/L	<0.26	<0.26	<0.26	<0.26	<0.26	1.2
Total Radium	pCi/L	0.699	0.797	0.469	0.689	--	0.615
Radium-226	pCi/L	0.213	0.201	0.0974	0.193	--	0.0919
Radium-228	pCi/L	0.486	0.596	0.371	0.496	--	0.523
Collected By		--	--	--	--	--	--
Field Oxidation Potential	mV	-257.8	-149	-204.7	-71.6	-71.9	-109.2
Field Specific Conductance	umhos/cm	935	806	825	855	1603	910
Field Temperature	deg C	13.2	14.5	13.2	11.3	12.4	16.1
Groundwater Elevation	feet	522.24	518.68	522.41	525.2	518.19	518.08
Oxygen, Dissolved	mg/L	0.07	0.15	0.07	0.09	0.05	0.16
Turbidity	NTU	3.34	7.7	9	10.6	15.72	4.74
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	8.3	8	7.9	7.1	6.5	6.6
Bicarbonate Alkalinity as CaCO3	mg/L	150	250	250	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	<2.3	<4.6	<4.6	--	--	--
Iron, dissolved	ug/L	1300	1900	830	11000	--	--
Manganese, dissolved	ug/L	680	1100	880	--	--	--
Molybdenum, dissolved	ug/L	99	90	83	--	--	--
Total Alkalinity as CaCO3	mg/L	150	250	250	--	--	--
Iron, total	ug/L	1500	2000	990	--	63000	130000
Magnesium, total	ug/L	6300	6600	6400	--	--	--
Manganese, total	ug/L	710	1100	920	--	--	--
Potassium, total	ug/L	11000	12000	13000	--	--	--
Sodium, total	ug/L	53000	46000	51000	--	--	--
Lithium, dissolved	ug/L	57	61	72	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-304

Number of Sampling Dates:

25

Parameter Name	Units	4/23/2024
Boron	ug/L	4400
Calcium	mg/L	110
Chloride	mg/L	38
Fluoride	mg/L	<0.38
Field pH	Std. Units	6.76
Sulfate	mg/L	190
Total Dissolved Solids	mg/L	530
Antimony	ug/L	<1
Arsenic	ug/L	15
Barium	ug/L	63
Beryllium	ug/L	<0.33
Cadmium	ug/L	0.15
Chromium	ug/L	<1.2
Cobalt	ug/L	1.5
Lead	ug/L	<0.26
Lithium	ug/L	110
Mercury	ug/L	<0.11
Molybdenum	ug/L	470
Selenium	ug/L	<1.4
Thallium	ug/L	<0.57
Total Radium	pCi/L	0.194
Radium-226	pCi/L	0.194
Radium-228	pCi/L	-0.0738
Collected By		--
Field Oxidation Potential	mV	-90.4
Field Specific Conductance	umhos/cm	923
Field Temperature	deg C	14.4
Groundwater Elevation	feet	520.9
Oxygen, Dissolved	mg/L	0.18
Turbidity	NTU	9.15
Collected Date		--
Collected Time		--
pH at 25 Degrees C	Std. Units	6.9
Bicarbonate Alkalinity as CaCO3	mg/L	--
Carbonate Alkalinity as CaCO3	mg/L	--
Iron, dissolved	ug/L	--
Manganese, dissolved	ug/L	--
Molybdenum, dissolved	ug/L	--
Total Alkalinity as CaCO3	mg/L	--
Iron, total	ug/L	23000
Magnesium, total	ug/L	--
Manganese, total	ug/L	--
Potassium, total	ug/L	--
Sodium, total	ug/L	--
Lithium, dissolved	ug/L	--

Single Location

Name: IPL - Burlington

Location ID: MW-305
 Number of Sampling Dates: 24

Parameter Name	Units	4/20/2016	6/6/2016	8/17/2016	10/3/2016	1/10/2017	4/3/2017
Boron	ug/L	1990	2040	1750	1730	1910	1880
Calcium	mg/L	116	119	95.1	93.1	88.8	82.8
Chloride	mg/L	34.8	32.9	34.5	32.3	34.8	34.2
Fluoride	mg/L	0.45	0.28	0.3	0.43	0.34	0.42
Field pH	Std. Units	7.25	7.75	7.54	7.63	7.48	7.55
Sulfate	mg/L	35.7	68	26.9	38.1	19.2	10.2
Total Dissolved Solids	mg/L	574	590	502	467	455	410
Antimony	ug/L	0.11	0.11	<0.058	0.082	<0.058	<0.026
Arsenic	ug/L	0.91	0.4	0.33	0.61	0.23	0.32
Barium	ug/L	231	242	208	190	208	178
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.038
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018
Chromium	ug/L	0.43	0.36	0.57	0.76	0.54	0.29
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.14
Lead	ug/L	0.22	<0.19	<0.19	<0.19	<0.19	0.19
Lithium	ug/L	24	29.8	17.2	25.2	28.5	25
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046
Molybdenum	ug/L	0.6	0.79	1.2	1.2	0.76	0.89
Selenium	ug/L	<0.18	<0.18	0.19	<0.18	<0.18	0.19
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036
Total Radium	pCi/L	1.73	1.58	1.55	1.54	1.31	0.73
Radium-226	pCi/L	0.125	0.529	0.143	0.43	0.467	0.128
Radium-228	pCi/L	1.6	1.05	1.41	1.11	0.847	0.602
Collected By		--	0	0	--	0	0
Field Oxidation Potential	mV	-142	-120	-133.3	-133.6	-119.8	-145.1
Field Specific Conductance	umhos/cm	807	1919	1611	1328	1371	1195
Field Temperature	deg C	14.9	14.9	15	15.1	14.7	14.9
Groundwater Elevation	feet	521.96	521.48	521.46	527.71	525.74	523.03
Oxygen, Dissolved	mg/L	0.13	1.18	0.92	0.44	0.16	0.13
Turbidity	NTU	10.6	1.79	0.41	1.15	0.46	1.88
pH at 25 Degrees C	Std. Units	7.1	7.2	7	7.4	7.8	7.5
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-305
 Number of Sampling Dates: 24

Parameter Name	Units	6/13/2017	8/16/2017	10/16/2017	5/9/2018	8/13/2018
Boron	ug/L	2180	1950	2480	2000	2400
Calcium	mg/L	96.3	80.2	92.2	82.5	103
Chloride	mg/L	37	34.3	35.8	34.8	34.8
Fluoride	mg/L	0.43	0.48	0.43	0.48	0.45
Field pH	Std. Units	7.74	7	7.78	7.72	7.81
Sulfate	mg/L	35	13.4	24.6	11.7	24.8
Total Dissolved Solids	mg/L	532	435	437	441	542
Antimony	ug/L	<0.026	0.13	--	<0.026	<0.15
Arsenic	ug/L	0.22	0.32	--	0.28	0.39
Barium	ug/L	231	186	--	173	219
Beryllium	ug/L	0.013	0.018	--	<0.012	<0.12
Cadmium	ug/L	<0.018	<0.018	--	<0.018	<0.07
Chromium	ug/L	0.27	0.43	--	0.25	0.21
Cobalt	ug/L	0.2	0.15	--	0.14	<0.15
Lead	ug/L	0.11	0.24	--	0.034	<0.12
Lithium	ug/L	26	26.6	--	27.8	33.6
Mercury	ug/L	<0.046	<0.046	--	<0.09	--
Molybdenum	ug/L	1.1	1.3	--	0.87	1
Selenium	ug/L	<0.086	0.18	--	0.24	0.16
Thallium	ug/L	<0.036	0.15	--	<0.036	--
Total Radium	pCi/L	1.35	1.14	--	2.11	1.78
Radium-226	pCi/L	0.551	0.454	--	0.992	0.411
Radium-228	pCi/L	0.795	0.683	--	1.12	1.37
Collected By		0	0	0	--	--
Field Oxidation Potential	mV	-80.8	-94.7	44.9	-146.8	-134
Field Specific Conductance	umhos/cm	624	972	759	733	901
Field Temperature	deg C	15.5	15.4	15.1	15.2	16.3
Groundwater Elevation	feet	522.78	519.93	522.48	526.06	520.29
Oxygen, Dissolved	mg/L	0.09	0.11	0.14	1.4	0.35
Turbidity	NTU	0.89	0.25	0.71	0.64	3.85
pH at 25 Degrees C	Std. Units	7.1	7.3	7.2	7.5	7.5
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-305

Number of Sampling Dates:

24

Parameter Name	Units	10/10/2018	4/3/2019	10/11/2019	6/3/2020	10/15/2020
Boron	ug/L	2040	2000	2100	2200	2400
Calcium	mg/L	93.2	83	90	120	120
Chloride	mg/L	34.9	33	33	36	32
Fluoride	mg/L	0.44	0.75	0.37	0.45	<0.23
Field pH	Std. Units	7.29	7.8	7.36	7.12	7.23
Sulfate	mg/L	19.6	10	8.8	33	54
Total Dissolved Solids	mg/L	490	470	490	640	600
Antimony	ug/L	<0.078	<0.53	<0.53	<0.58	<0.51
Arsenic	ug/L	0.44	<0.75	<0.75	<0.88	<0.88
Barium	ug/L	197	160	180	230	250
Beryllium	ug/L	<0.089	<0.27	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.033	<0.077	<0.039	<0.039	<0.049
Chromium	ug/L	0.27	<0.98	<0.98	<1.1	<1.1
Cobalt	ug/L	0.17	0.16	0.13	0.18	0.15
Lead	ug/L	0.2	<0.27	<0.27	<0.27	<0.11
Lithium	ug/L	27.6	29	26	28	34
Mercury	ug/L	<0.09	<0.1	--	0.12	<0.1
Molybdenum	ug/L	0.72	<1.1	<1.1	<1.1	1.1
Selenium	ug/L	0.16	<1	<1	<1	<1
Thallium	ug/L	<0.099	<0.27	--	<0.26	--
Total Radium	pCi/L	1.22	0.519	0.441	0.759/0.759	0.55
Radium-226	pCi/L	0.423	0.154	0.256	0.248/0.248	0.282
Radium-228	pCi/L	0.8	0.365	0.185	0.511/0.511	0.269
Collected By		--	--	--	--	--
Field Oxidation Potential	mV	-140	-133.5	-132.9	39.8	-175
Field Specific Conductance	umhos/cm	846	733	795	972	987
Field Temperature	deg C	16.2	14.47	14.29	15.9	14.6
Groundwater Elevation	feet	528.97	528.36	--	524.12	519
Oxygen, Dissolved	mg/L	0.2	0.59	0.2	0.14	0.37
Turbidity	NTU	4.94	3.88	3.02	13.46	0.02
pH at 25 Degrees C	Std. Units	7.3	7.4	7.5	7.3	8.1
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	470
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	<3.8
Iron, dissolved	ug/L	--	--	--	--	3000
Manganese, dissolved	ug/L	--	--	--	--	2900
Molybdenum, dissolved	ug/L	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	470
Iron, total	ug/L	--	--	--	--	3000
Magnesium, total	ug/L	--	--	--	--	26000
Manganese, total	ug/L	--	--	--	--	2800
Potassium, total	ug/L	--	--	--	--	5700
Sodium, total	ug/L	--	--	--	--	54000
Lithium, dissolved	ug/L	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-305

Number of Sampling Dates:

24

Parameter Name	Units	3/2/2021	4/20/2021	10/14/2021	4/6/2022	4/26/2023	8/1/2023
Boron	ug/L	--	2200	2400	2400	1100	1300
Calcium	mg/L	--	110	130	110	97	130
Chloride	mg/L	--	28	34	31	27	29
Fluoride	mg/L	--	0.45	0.31	<0.22	<0.38	<0.38
Field pH	Std. Units	7.29	7.3	7.24	7.25	5.18	6.39
Sulfate	mg/L	--	28	52	19	450	370
Total Dissolved Solids	mg/L	--	420	570	490	640	700
Antimony	ug/L	--	<1.1	<1.1	<0.69	<1	<1
Arsenic	ug/L	--	<0.75	<0.75	0.92	<0.53	2
Barium	ug/L	--	220	240	210	38	44
Beryllium	ug/L	--	<0.27	<0.27	<0.27	<0.33	<0.33
Cadmium	ug/L	--	<0.051	<0.051	<0.055	0.45	<0.1
Chromium	ug/L	--	<1.1	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	--	0.14	0.21	0.22	290	9.2
Lead	ug/L	--	<0.21	<0.21	<0.24	<0.24	0.25
Lithium	ug/L	--	36	32	36	37	18
Mercury	ug/L	--	<0.15	--	<0.11	<0.14	<0.14
Molybdenum	ug/L	--	<1.3	<1.3	<1.2	1.5	1.3
Selenium	ug/L	--	<0.96	<0.96	<0.96	<1.4	<1.4
Thallium	ug/L	--	<0.26	<0.26	<0.26	<0.26	<0.26
Total Radium	pCi/L	--	0.761	0.871	0.768	0.449	--
Radium-226	pCi/L	--	0.264	0.332	0.47	0.17	--
Radium-228	pCi/L	--	0.496	0.539	0.298	0.28	--
Collected By		--	--	--	--	--	--
Field Oxidation Potential	mV	-154	-135.7	-95.1	-116.2	40.5	-21.2
Field Specific Conductance	umhos/cm	865	839	911	870	977	1081
Field Temperature	deg C	14.8	14.7	14.7	14.3	11.4	10.9
Groundwater Elevation	feet	520.48	522.31	519.18	522.6	517.35	518.03
Oxygen, Dissolved	mg/L	0.44	0.11	0.17	0.06	0.14	0.02
Turbidity	NTU	0.02	1.97	9	9	0.02	3.63
pH at 25 Degrees C	Std. Units	--	7.5	7.4	7.4	5.4	6.6
Bicarbonate Alkalinity as CaCO3	mg/L	410	390	550	470	--	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.3	<4.6	<4.6	--	--
Iron, dissolved	ug/L	1800	1700	2100	1500	2500	--
Manganese, dissolved	ug/L	1900	2000	2900	2300	--	--
Molybdenum, dissolved	ug/L	--	--	<1.3	1.5	--	--
Total Alkalinity as CaCO3	mg/L	410	390	550	470	--	--
Iron, total	ug/L	1900	1800	2100	1700	--	24000
Magnesium, total	ug/L	21000	22000	24000	21000	--	--
Manganese, total	ug/L	1900	2100	2800	2400	--	--
Potassium, total	ug/L	6300	5500	6100	6000	--	--
Sodium, total	ug/L	47000	51000	53000	49000	--	--
Lithium, dissolved	ug/L	--	--	31	34	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-305
 Number of Sampling Dates: 24

Parameter Name	Units	10/3/2023	4/23/2024
Boron	ug/L	1500	1800
Calcium	mg/L	150	99
Chloride	mg/L	29	32
Fluoride	mg/L	<0.38	<0.38
Field pH	Std. Units	6.19	6.31
Sulfate	mg/L	440	230
Total Dissolved Solids	mg/L	840	580
Antimony	ug/L	<1	<1
Arsenic	ug/L	2.7	3.9
Barium	ug/L	40	37
Beryllium	ug/L	<0.33	<0.33
Cadmium	ug/L	<0.1	<0.1
Chromium	ug/L	<1.1	<1.2
Cobalt	ug/L	11	4.7
Lead	ug/L	<0.24	<0.26
Lithium	ug/L	20	25
Mercury	ug/L	<0.14	<0.11
Molybdenum	ug/L	2	4.3
Selenium	ug/L	<1.4	<1.4
Thallium	ug/L	<0.26	<0.57
Total Radium	pCi/L	0.67	0.681
Radium-226	pCi/L	0.186	-0.00104
Radium-228	pCi/L	0.484	0.681
Collected By		--	--
Field Oxidation Potential	mV	-46.3	-33.6
Field Specific Conductance	umhos/cm	1278	955
Field Temperature	deg C	12	12.9
Groundwater Elevation	feet	518	520.96
Oxygen, Dissolved	mg/L	0.2	0.17
Turbidity	NTU	3.16	11.17
pH at 25 Degrees C	Std. Units	7.2	6.6
Bicarbonate Alkalinity as CaCO3	mg/L	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--
Iron, dissolved	ug/L	--	--
Manganese, dissolved	ug/L	--	--
Molybdenum, dissolved	ug/L	--	--
Total Alkalinity as CaCO3	mg/L	--	--
Iron, total	ug/L	35000	31000
Magnesium, total	ug/L	--	--
Manganese, total	ug/L	--	--
Potassium, total	ug/L	--	--
Sodium, total	ug/L	--	--
Lithium, dissolved	ug/L	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-306

Number of Sampling Dates:

25

Parameter Name	Units	4/21/2016	6/6/2016	8/17/2016	10/3/2016	1/10/2017	4/4/2017
Boron	ug/L	3460	3340	3300	3340	3630	3770
Calcium	mg/L	37.5	38.1	41.2	40.8	37.5	40.3
Chloride	mg/L	22.9	22.6	20.6	21.1	20.6	20.2
Fluoride	mg/L	0.093	<0.073	0.03	0.075	0.052	<0.1
Field pH	Std. Units	10.4	10.36	6.37	6.5	6.33	6.29
Sulfate	mg/L	152	132	135	137	123	120
Total Dissolved Solids	mg/L	333	321	348	333	307	302
Antimony	ug/L	1.2	1.2	1	1.2	1.3	1.2
Arsenic	ug/L	56.6	47.4	43.9	46.4	53.4	50.5
Barium	ug/L	21.2	18.2	18.8	15.5	14.4	14.8
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.024
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018
Chromium	ug/L	<0.34	<0.34	0.4	<0.34	0.45	0.49
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.034
Lead	ug/L	0.28	<0.19	<0.19	<0.19	0.19	0.16
Lithium	ug/L	33.5	37.9	39.5	35.9	44.1	41.2
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046
Molybdenum	ug/L	95.7	84.1	80.9	83.7	88.9	87.4
Selenium	ug/L	0.66	0.54	0.81	0.46	0.55	0.48
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036
Total Radium	pCi/L	1.28	0.858	0.208	0.0727	0.744	1.19
Radium-226	pCi/L	0.438	0.144	0	-0.143	0.0633	0.457
Radium-228	pCi/L	0.841	0.714	0.208	0.0727	0.681	0.731
Collected By		--	0	0	--	0	0
Field Oxidation Potential	mV	-127.8	-181	-155.5	-96.8	-26.7	-64.7
Field Specific Conductance	umhos/cm	398	977	1000	874	864	823
Field Temperature	deg C	14.5	14.4	14.8	14.8	14.4	14.5
Groundwater Elevation	feet	521.74	521.43	521.53	527.67	525.67	523.07
Oxygen, Dissolved	mg/L	0.11	0.57	1.91	0.14	0.06	0.12
Turbidity	NTU	0.4	0.1	0.4	0.97	0.19	0.14
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	9.9	10.2	6.1	6.8	7.1	6.8
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-306

Number of Sampling Dates:

25

Parameter Name	Units	6/13/2017	8/16/2017	10/16/2017	5/9/2018	8/14/2018	10/10/2018
Boron	ug/L	3350	3700	3680	3480	3430	3350
Calcium	mg/L	34.5	38.9	35.3	32	33.5	34.6
Chloride	mg/L	20.6	20.6	20.6	20.3	20.6	20.9
Fluoride	mg/L	<0.1	<0.1	0.15	0.12	0.1	<0.19
Field pH	Std. Units	11.25	6.59	10.66	6.8	10.33	6.04
Sulfate	mg/L	126	93.4	97.5	107	111	121
Total Dissolved Solids	mg/L	305	312	301	396	303	289
Antimony	ug/L	1.4	0.92	--	1.2	1.4	1.2
Arsenic	ug/L	48.1	43.2	--	52.6	48	50.6
Barium	ug/L	14.1	14.3	--	13.6	15.5	14.8
Beryllium	ug/L	0.054	<0.012	--	<0.012	0.14	<0.089
Cadmium	ug/L	0.036	<0.018	--	0.029	0.18	<0.033
Chromium	ug/L	0.31	0.43	--	0.24	0.25	0.18
Cobalt	ug/L	0.046	0.054	--	0.035	0.18	<0.062
Lead	ug/L	0.25	0.3	--	0.26	0.69	0.37
Lithium	ug/L	41.4	46.8	--	36.6	46.8	41.4
Mercury	ug/L	<0.046	<0.046	--	<0.09	--	<0.09
Molybdenum	ug/L	80.4	94.4	--	84.7	82.9	83.5
Selenium	ug/L	0.74	0.52	--	0.66	0.97	0.6
Thallium	ug/L	<0.036	0.15	--	<0.036	--	<0.099
Total Radium	pCi/L	0.254	1.03	--	0.482	1.04	1.1
Radium-226	pCi/L	0.157	0.424	--	0.174	0.397	0.383
Radium-228	pCi/L	0.0974	0.604	--	0.308	0.64	0.712
Collected By		0	0	0	--	--	--
Field Oxidation Potential	mV	-151	-52.5	286.2	-104.3	-265	58.1
Field Specific Conductance	umhos/cm	331.7	662	447.9	354.2	447	478
Field Temperature	deg C	15.8	14.9	14.8	14.7	15.9	17.25
Groundwater Elevation	feet	522.87	519.82	522.72	526	520.14	528.95
Oxygen, Dissolved	mg/L	0.22	0.03	0.37	0.05	0.3	0.38
Turbidity	NTU	0.81	0.1	0.35	0.71	2.88	2.67
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	10.2	6.8	9.7	6.5	10	6
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-306

Number of Sampling Dates:

25

Parameter Name	Units	3/11/2019	4/3/2019	10/11/2019	6/4/2020	10/15/2020
Boron	ug/L	--	2900	3100	3200	3200
Calcium	mg/L	--	37	38	41	37
Chloride	mg/L	--	21	20	21	18
Fluoride	mg/L	--	0.36	<0.23	<0.23	<0.23
Field pH	Std. Units	6.27	6.69	10.53	10.48	10
Sulfate	mg/L	--	110	110	120	71
Total Dissolved Solids	mg/L	--	320	290	320	300
Antimony	ug/L	--	1.1	1.2	1.1	0.9
Arsenic	ug/L	--	50	46	50	46
Barium	ug/L	--	14	14	16	16
Beryllium	ug/L	--	<0.27	<0.27	<0.27	<0.27
Cadmium	ug/L	--	<0.077	<0.039	<0.039	<0.049
Chromium	ug/L	--	<0.98	<0.98	<1.1	<1.1
Cobalt	ug/L	--	<0.091	<0.091	<0.091	<0.091
Lead	ug/L	--	<0.27	0.44	0.33	0.43
Lithium	ug/L	39.2	45	46	43	42
Mercury	ug/L	--	<0.1	--	0.1	<0.1
Molybdenum	ug/L	--	78	84	86	82
Selenium	ug/L	--	<1	<1	<1	<1
Thallium	ug/L	--	<0.27	--	<0.26	--
Total Radium	pCi/L	--	0.165	0.526	<0.313/0.0769	0.119
Radium-226	pCi/L	--	0.0333	0.21	<0.0638/0.0516	0.0226
Radium-228	pCi/L	--	0.132	0.316	<0.313/0.0253	0.0962
Collected By		0	--	--	--	--
Field Oxidation Potential	mV	-88.9	-92.8	-165.1	59	-273.7
Field Specific Conductance	umhos/cm	343	4711	473	482	453.7
Field Temperature	deg C	14.27	13.44	14.28	14.4	14.1
Groundwater Elevation	feet	523.21	528.4	--	524.45	519.05
Oxygen, Dissolved	mg/L	0.8	0.69	0.21	0.16	0.11
Turbidity	NTU	0.56	0.81	1.84	15.96	0.02
Collected Date		3	--	--	--	--
Collected Time		17	--	--	--	--
pH at 25 Degrees C	Std. Units	--	6	10.5	10.3	9.6
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	52
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	82
Iron, dissolved	ug/L	--	--	--	--	<50
Manganese, dissolved	ug/L	--	--	--	--	<4
Molybdenum, dissolved	ug/L	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	130
Iron, total	ug/L	--	--	--	--	<50
Magnesium, total	ug/L	--	--	--	--	<100
Manganese, total	ug/L	--	--	--	--	5.4
Potassium, total	ug/L	--	--	--	--	20000
Sodium, total	ug/L	--	--	--	--	46000
Lithium, dissolved	ug/L	--	--	--	--	42

Single Location

Name: IPL - Burlington

Location ID:

MW-306

Number of Sampling Dates:

25

Parameter Name	Units	3/2/2021	4/19/2021	10/11/2021	4/5/2022	4/27/2023	8/2/2023
Boron	ug/L	--	3000	2800	3300	4100	5700
Calcium	mg/L	--	41	42	45	70	140
Chloride	mg/L	--	17	19	19	31	31
Fluoride	mg/L	--	<0.28	<0.28	<0.22	<0.38	<0.38
Field pH	Std. Units	9.46	10.02	5.83	5.95	8.77	8.81
Sulfate	mg/L	--	110	120	120	50	270
Total Dissolved Solids	mg/L	--	260	250	310	310	630
Antimony	ug/L	--	1.4	<1.1	<0.69	<1	<1
Arsenic	ug/L	--	53	43	48	36	32
Barium	ug/L	--	19	17	19	61	110
Beryllium	ug/L	--	<0.27	<0.27	<0.27	<0.33	<0.33
Cadmium	ug/L	--	<0.051	<0.051	<0.055	<0.1	<0.1
Chromium	ug/L	--	<1.1	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	--	<0.091	<0.19	<0.19	0.42	0.31
Lead	ug/L	--	<0.21	0.26	<0.24	<0.24	1.5
Lithium	ug/L	--	43	41	42	34	49
Mercury	ug/L	--	<0.15	--	<0.11	<0.14	<0.14
Molybdenum	ug/L	--	87	69	74	12	71
Selenium	ug/L	--	<0.96	1.2	<0.96	<1.4	<1.4
Thallium	ug/L	--	<0.26	<0.26	<0.26	<0.26	<0.26
Total Radium	pCi/L	--	0.415	0.114	0.489	0.735	--
Radium-226	pCi/L	--	0.121	0.11	0.0776	0.212	--
Radium-228	pCi/L	--	0.294	0.00348	0.412	0.523	--
Collected By		--	--	--	--	--	--
Field Oxidation Potential	mV	-196	-188	12.3	-75.3	48.4	-129
Field Specific Conductance	umhos/cm	415	442	476.1	468.4	577	937
Field Temperature	deg C	14.1	13.8	16	13.6	12.5	12.9
Groundwater Elevation	feet	520.65	522.52	519.15	522.63	522.2	518.07
Oxygen, Dissolved	mg/L	0.39	0.34	0.28	0.14	0.11	0.19
Turbidity	NTU	0.02	0.02	6.9	4	0.02	15.54
Collected Date		--	--	--	--	--	--
Collected Time		--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	--	10.3	6.2	6.2	8.9	8.6
Bicarbonate Alkalinity as CaCO3	mg/L	68	<2.3	95	100	--	--
Carbonate Alkalinity as CaCO3	mg/L	46	50	<4.6	<4.6	--	--
Iron, dissolved	ug/L	<36	<36	<36	<36	<36	--
Manganese, dissolved	ug/L	5.4	<4.4	8	5.7	--	--
Molybdenum, dissolved	ug/L	--	--	77	81	--	--
Total Alkalinity as CaCO3	mg/L	110	74	95	100	--	--
Iron, total	ug/L	54	<36	<36	<36	--	340
Magnesium, total	ug/L	<100	<100	120	<150	--	--
Manganese, total	ug/L	6.5	<4.4	7.7	6	--	--
Potassium, total	ug/L	19000	23000	20000	22000	--	--
Sodium, total	ug/L	50000	40000	45000	46000	--	--
Lithium, dissolved	ug/L	29	41	38	37	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-306

Number of Sampling Dates:

25

Parameter Name	Units	10/4/2023	4/24/2024
Boron	ug/L	3100	2200
Calcium	mg/L	99	93
Chloride	mg/L	<2.3	36
Fluoride	mg/L	<0.38	<0.38
Field pH	Std. Units	8.78	8.66
Sulfate	mg/L	130	100
Total Dissolved Solids	mg/L	520	400
Antimony	ug/L	<1	<1
Arsenic	ug/L	34	32
Barium	ug/L	67	79
Beryllium	ug/L	<0.33	<0.33
Cadmium	ug/L	<0.1	<0.1
Chromium	ug/L	<1.1	<1.2
Cobalt	ug/L	<0.17	<0.17
Lead	ug/L	<0.24	<0.26
Lithium	ug/L	35	23
Mercury	ug/L	<0.14	<0.11
Molybdenum	ug/L	36	63
Selenium	ug/L	<1.4	<1.4
Thallium	ug/L	<0.26	<0.57
Total Radium	pCi/L	1.39	0.0168
Radium-226	pCi/L	0.178	0.0168
Radium-228	pCi/L	1.21	-0.214
Collected By		--	--
Field Oxidation Potential	mV	-102.7	-134.8
Field Specific Conductance	umhos/cm	604	662
Field Temperature	deg C	14.7	12.2
Groundwater Elevation	feet	518.13	520.89
Oxygen, Dissolved	mg/L	0.22	0.15
Turbidity	NTU	6.14	18.8
Collected Date		--	--
Collected Time		--	--
pH at 25 Degrees C	Std. Units	8.1	8.9
Bicarbonate Alkalinity as CaCO3	mg/L	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--
Iron, dissolved	ug/L	--	--
Manganese, dissolved	ug/L	--	--
Molybdenum, dissolved	ug/L	--	--
Total Alkalinity as CaCO3	mg/L	--	--
Iron, total	ug/L	57	<36
Magnesium, total	ug/L	--	--
Manganese, total	ug/L	--	--
Potassium, total	ug/L	--	--
Sodium, total	ug/L	--	--
Lithium, dissolved	ug/L	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-307

Number of Sampling Dates: 25

Parameter Name	Units	4/20/2016	6/6/2016	8/17/2016	10/3/2016
Boron	ug/L	3720	3760	3720	3880
Calcium	mg/L	31.9	30.8	31.3	34.1
Chloride	mg/L	23.5	22.6	21.4	21.6
Fluoride	mg/L	0.099	<0.073	0.032	0.079
Field pH	Std. Units	10.28	10.19	10.6	10.5
Sulfate	mg/L	183	150	160	161
Total Dissolved Solids	mg/L	408	385	386	374
Antimony	ug/L	0.46	0.62	0.48	0.64
Arsenic	ug/L	53	57.4	57.1	59.2
Barium	ug/L	38.3	42.2	38.7	38.4
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029
Chromium	ug/L	<0.34	0.84	0.5	0.62
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5
Lead	ug/L	0.48	1.1	0.36	0.36
Lithium	ug/L	43.1	45.6	42.4	45.1
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039
Molybdenum	ug/L	146	155	142	150
Selenium	ug/L	0.47	0.45	0.46	0.45
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5
Total Radium	pCi/L	1.6	0.194	0.882	0.552
Radium-226	pCi/L	0.153	-0.064	0.068	0.197
Radium-228	pCi/L	1.45	0.258	0.814	0.355
Collected By		--	0	0	--
Field Oxidation Potential	mV	-201.7	-168	-212.1	-289.4
Field Specific Conductance	umhos/cm	480.2	1142	1064	958
Field Temperature	deg C	14.2	14.1	14.2	14.6
Groundwater Elevation	feet	522.38	521.75	521.91	527.81
Oxygen, Dissolved	mg/L	0.08	0.6	6.01	0.29
Turbidity	NTU	1.54	0.46	0.6	1.4
Collected Date		--	--	--	--
Collected Time		--	--	--	--
pH at 25 Degrees C	Std. Units	9.8	10	9.8	10.1
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--

Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, total	ug/L	--	--	--	--
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-307

Number of Sampling Dates: 25

Parameter Name	Units	1/10/2017	4/4/2017	6/13/2017	8/16/2017
Boron	ug/L	3960	4050	3740	3780
Calcium	mg/L	31.3	32.3	28.1	29.8
Chloride	mg/L	21.3	20.9	21.3	20.7
Fluoride	mg/L	0.057	<0.1	<0.1	<0.1
Field pH	Std. Units	10.82	10.94	10.74	10.8
Sulfate	mg/L	145	135	136	130
Total Dissolved Solids	mg/L	355	354	353	356
Antimony	ug/L	0.53	0.48	0.48	0.54
Arsenic	ug/L	59.2	56.2	55.8	52.8
Barium	ug/L	34.7	33.4	33	31.1
Beryllium	ug/L	<0.08	0.033	<0.012	<0.012
Cadmium	ug/L	<0.029	<0.018	<0.018	0.023
Chromium	ug/L	<0.34	0.19	0.24	0.33
Cobalt	ug/L	<0.5	0.037	0.042	0.034
Lead	ug/L	0.45	0.43	0.43	0.46
Lithium	ug/L	49.6	48.4	42.2	47.5
Mercury	ug/L	<0.055	0.047	<0.046	<0.046
Molybdenum	ug/L	154	154	155	152
Selenium	ug/L	0.44	0.42	0.46	0.42
Thallium	ug/L	<0.5	<0.036	<0.036	0.18
Total Radium	pCi/L	0	0.651	0.85	0.673
Radium-226	pCi/L	-0.075	-0.156	0.735	0.393
Radium-228	pCi/L	-0.0697	0.651	0.115	0.28
Collected By		0	0	0	0
Field Oxidation Potential	mV	-253.6	-287.1	-177.1	-168.9
Field Specific Conductance	umhos/cm	940	901	368.3	735
Field Temperature	deg C	14.4	14.4	14.9	14.6
Groundwater Elevation	feet	525.81	523.14	523.17	520.16
Oxygen, Dissolved	mg/L	0.11	0.28	0.12	0.19
Turbidity	NTU	0.6	0.14	3.11	1.98
Collected Date		--	--	--	--
Collected Time		--	--	--	--
pH at 25 Degrees C	Std. Units	9.6	9.8	9.8	9.8
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--

Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, total	ug/L	--	--	--	--
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-307

Number of Sampling Dates: 25

Parameter Name	Units	10/16/2017	5/9/2018	8/14/2018	10/10/2018
Boron	ug/L	3920	3910	4090	3720
Calcium	mg/L	31.3	27.3	27.2	27.6
Chloride	mg/L	20.8	20.1	20.1	21.6
Fluoride	mg/L	0.13	0.11	0.094	<0.19
Field pH	Std. Units	10.46	10.3	10.12	9.88
Sulfate	mg/L	126	119	119	143
Total Dissolved Solids	mg/L	341	347	340	336
Antimony	ug/L	--	0.5	0.58	0.62
Arsenic	ug/L	--	54.3	52.3	52.8
Barium	ug/L	--	32.3	29	31.1
Beryllium	ug/L	--	<0.012	<0.12	<0.089
Cadmium	ug/L	--	0.12	<0.07	0.068
Chromium	ug/L	--	0.27	0.36	0.15
Cobalt	ug/L	--	0.033	<0.15	<0.062
Lead	ug/L	--	0.39	0.43	0.49
Lithium	ug/L	--	47.8	56.1	45.4
Mercury	ug/L	--	<0.09	--	<0.09
Molybdenum	ug/L	--	154	155	159
Selenium	ug/L	--	0.36	0.41	0.36
Thallium	ug/L	--	<0.036	--	<0.099
Total Radium	pCi/L	--	0.0587	0.415	1.43
Radium-226	pCi/L	--	0.0587	0	0.988
Radium-228	pCi/L	--	-0.024	0.415	0.439
Collected By		0	--	--	--
Field Oxidation Potential	mV	-78.9	-168.6	-221	-87.3
Field Specific Conductance	umhos/cm	485.7	499.9	512	497
Field Temperature	deg C	14.7	14.4	15.6	15.64
Groundwater Elevation	feet	522.55	526.06	520.46	529.08
Oxygen, Dissolved	mg/L	0.18	1.1	0.49	0.22
Turbidity	NTU	0.32	1.87	5.09	1.85
Collected Date		--	--	--	--
Collected Time		--	--	--	--
pH at 25 Degrees C	Std. Units	9.8	9.9	9.9	9.9
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--

Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, total	ug/L	--	--	--	--
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-307

Number of Sampling Dates: 25

Parameter Name	Units	3/11/2019	4/3/2019	10/11/2019	6/4/2020
Boron	ug/L	--	3400	3700	3600
Calcium	mg/L	--	29	31	37
Chloride	mg/L	--	21	19	21
Fluoride	mg/L	--	0.51	<0.23	<0.23
Field pH	Std. Units	9.71	10.39	10.14	10.03
Sulfate	mg/L	--	120	130	180
Total Dissolved Solids	mg/L	--	420	340	390
Antimony	ug/L	--	<0.53	<0.53	<0.58
Arsenic	ug/L	--	43	47	47
Barium	ug/L	--	29	31	36
Beryllium	ug/L	--	<0.27	<0.27	<0.27
Cadmium	ug/L	--	<0.077	<0.039	0.044
Chromium	ug/L	--	<0.98	<0.98	<1.1
Cobalt	ug/L	--	<0.091	<0.091	<0.091
Lead	ug/L	--	0.37	0.41	<0.27
Lithium	ug/L	50.7	50	48	48
Mercury	ug/L	--	<0.1	--	0.12
Molybdenum	ug/L	156	100	130	130
Selenium	ug/L	--	<1	<1	<1
Thallium	ug/L	--	<0.27	--	<0.26
Total Radium	pCi/L	--	0.447	0.232	<0.471/0.277
Radium-226	pCi/L	--	0.0752	0.218	<0.101/0.0806
Radium-228	pCi/L	--	0.372	0.0141	<0.471/0.197
Collected By		0	--	--	--
Field Oxidation Potential	mV	-78.3	-167.8	-126.3	60.2
Field Specific Conductance	umhos/cm	367	500	536	586
Field Temperature	deg C	14.36	13.56	14.37	14.8
Groundwater Elevation	feet	523.49	528.63	--	524.62
Oxygen, Dissolved	mg/L	1.07	0.68	0.24	0.3
Turbidity	NTU	1.05	3.1	3.23	14.33
Collected Date		3	--	--	--
Collected Time		1633	--	--	--
pH at 25 Degrees C	Std. Units	--	10	10.2	10
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--

Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, total	ug/L	--	--	--	--
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-307

Number of Sampling Dates: 25

Parameter Name	Units	10/15/2020	3/2/2021	4/20/2021	10/11/2021
Boron	ug/L	3400	--	3400	3000
Calcium	mg/L	36	--	39	42
Chloride	mg/L	17	--	17	19
Fluoride	mg/L	<0.23	--	<0.28	<0.28
Field pH	Std. Units	10.05	9.96	10.02	9.89
Sulfate	mg/L	160	--	140	170
Total Dissolved Solids	mg/L	370	--	330	280
Antimony	ug/L	0.56	--	<1.1	<1.1
Arsenic	ug/L	47	--	52	34
Barium	ug/L	39	--	39	39
Beryllium	ug/L	<0.27	--	<0.27	<0.27
Cadmium	ug/L	<0.049	--	<0.051	<0.051
Chromium	ug/L	<1.1	--	<1.1	<1.1
Cobalt	ug/L	<0.091	--	<0.091	<0.19
Lead	ug/L	0.19	--	<0.21	<0.21
Lithium	ug/L	51	--	53	52
Mercury	ug/L	<0.1	--	<0.15	--
Molybdenum	ug/L	140	--	140	85
Selenium	ug/L	<1	--	<0.96	<0.96
Thallium	ug/L	--	--	<0.26	<0.26
Total Radium	pCi/L	0.18	--	0.0114	1.14
Radium-226	pCi/L	0.18	--	0.0114	0.103
Radium-228	pCi/L	-2.16	--	-0.01	1.04
Collected By		--	--	--	--
Field Oxidation Potential	mV	-269.7	-233	-242.4	-215.3
Field Specific Conductance	umhos/cm	564.8	552	546	547.9
Field Temperature	deg C	14	14	13.9	14.4
Groundwater Elevation	feet	519.33	521.01	522.89	519.55
Oxygen, Dissolved	mg/L	0.11	0.38	0.08	0.16
Turbidity	NTU	0.02	0.49	2.38	8.2
Collected Date		--	--	--	--
Collected Time		--	--	--	--
pH at 25 Degrees C	Std. Units	9.5	--	10.4	10.2
Bicarbonate Alkalinity as CaCO3	mg/L	<1.9	35	<4.6	9.5
Carbonate Alkalinity as CaCO3	mg/L	79	49	79	110
Iron, dissolved	ug/L	<50	<36	<36	<36
Manganese, dissolved	ug/L	6.6	5.3	5.1	6.5

Molybdenum, dissolved	ug/L	140	130	140	90
Total Alkalinity as CaCO3	mg/L	84	84	89	120
Iron, total	ug/L	<50	<36	<36	<36
Magnesium, total	ug/L	<100	<100	<100	<100
Manganese, total	ug/L	6.4	5.4	5.5	6.4
Potassium, total	ug/L	36000	38000	37000	36000
Sodium, total	ug/L	54000	52000	53000	49000
Lithium, dissolved	ug/L	50	52	51	50

Single Location

Name: IPL - Burlington

Location ID: MW-307

Number of Sampling Dates: 25

Parameter Name	Units	4/5/2022	4/24/2023	8/1/2023	10/4/2023	4/24/2024
Boron	ug/L	3300	4800	3700	3200	3200
Calcium	mg/L	46	53	76	52	47
Chloride	mg/L	20	28	24	21	28
Fluoride	mg/L	<0.22	<0.38	<0.38	<0.38	<0.38
Field pH	Std. Units	9.88	8.35	7.62	8.18	8.6
Sulfate	mg/L	190	100	330	240	210
Total Dissolved Solids	mg/L	360	390	550	460	370
Antimony	ug/L	<0.69	<1	<1	<1	<1
Arsenic	ug/L	41	8.8	8.2	10	12
Barium	ug/L	41	76	92	54	47
Beryllium	ug/L	<0.27	<0.33	<0.33	<0.33	<0.33
Cadmium	ug/L	<0.055	0.12	0.24	0.18	0.1
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1	<1.2
Cobalt	ug/L	<0.19	0.31	0.92	0.41	<0.17
Lead	ug/L	<0.24	<0.24	1.1	<0.24	<0.26
Lithium	ug/L	50	72	100	95	79
Mercury	ug/L	<0.11	<0.14	<0.14	<0.14	<0.11
Molybdenum	ug/L	100	320	280	290	320
Selenium	ug/L	<0.96	<1.4	<1.4	<1.4	<1.4
Thallium	ug/L	<0.26	<0.26	<0.26	<0.26	<0.57
Total Radium	pCi/L	0.134	0.258	--	0.532	0.595
Radium-226	pCi/L	0.0536	0.101	--	0.055	0.0654
Radium-228	pCi/L	0.0809	0.157	--	0.477	0.53
Collected By		--	--	--	--	--
Field Oxidation Potential	mV	-218.8	110.6	-111.6	-201	-216.9
Field Specific Conductance	umhos/cm	549.8	634.9	872	745	658
Field Temperature	deg C	13.4	13.7	12.6	14.9	11.6
Groundwater Elevation	feet	522.91	519.61	518.04	518.3	521.08
Oxygen, Dissolved	mg/L	0.03	0.13	0.05	1.69	0.26
Turbidity	NTU	4	3.93	15.09	6.27	15.2
Collected Date		--	--	--	--	--
Collected Time		--	--	--	--	--
pH at 25 Degrees C	Std. Units	9.9	8.3	7.4	8.4	8.6
Bicarbonate Alkalinity as CaCO3	mg/L	21	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	82	--	--	--	--
Iron, dissolved	ug/L	<36	<36	--	--	--
Manganese, dissolved	ug/L	6.8	--	--	--	--

Molybdenum, dissolved	ug/L	140	--	--	--	--
Total Alkalinity as CaCO3	mg/L	100	--	--	--	--
Iron, total	ug/L	<36	--	640	610	590
Magnesium, total	ug/L	<150	--	--	--	--
Manganese, total	ug/L	7.5	--	--	--	--
Potassium, total	ug/L	38000	--	--	--	--
Sodium, total	ug/L	56000	--	--	--	--
Lithium, dissolved	ug/L	47	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

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Number of Sampling Dates:

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Parameter Name	Units	9/9/2020	10/14/2020	3/2/2021	4/20/2021	10/11/2021
Boron	ug/L	3900	4100	--	4100	4300
Calcium	mg/L	10	11	--	11	10
Chloride	mg/L	34	31	--	28	31
Fluoride	mg/L	<0.23	<0.23	--	0.38	<0.28
Field pH	Std. Units	7.83	7.8	7.66	7.74	7.83
Sulfate	mg/L	110	110	--	110	140
Total Dissolved Solids	mg/L	370	360	--	330	310
Antimony	ug/L	<0.51	<0.51	--	<1.1	<1.1
Arsenic	ug/L	<0.88	<0.88	--	<0.75	<0.75
Barium	ug/L	45	47	--	48	43
Beryllium	ug/L	<0.27	<0.27	--	<0.27	<0.27
Cadmium	ug/L	0.058	0.052	--	<0.051	0.069
Chromium	ug/L	<1.1	<1.1	--	<1.1	<1.1
Cobalt	ug/L	0.11	0.15	--	<0.091	<0.19
Lead	ug/L	0.69	0.63	--	0.59	0.77
Lithium	ug/L	6.8	8.3	9.1	8.7	7.7
Mercury	ug/L	<0.1	<0.1	--	<0.15	--
Molybdenum	ug/L	110	120	120	120	110
Selenium	ug/L	<1	<1	--	<0.96	<0.96
Thallium	ug/L	<0.26	--	--	<0.26	<0.26
Total Radium	pCi/L	0.605	0.412	--	0.307	0.981
Radium-226	pCi/L	0.168	0.169	--	0.133	0.0614
Radium-228	pCi/L	0.438	0.243	--	0.175	0.92
Field Oxidation Potential	mV	-154.2	-189.9	-171	-167.3	-133.4
Field Specific Conductance	umhos/cm	585	553.6	568	566	551
Field Temperature	deg C	14.4	14.6	14	13.7	14.4
Groundwater Elevation	feet	519.97	519	520.52	522.39	519.09
Oxygen, Dissolved	mg/L	0.17	0.18	0.29	0.13	0.12
Turbidity	NTU	0	2.96	0.95	2.89	7.4
pH at 25 Degrees C	Std. Units	8	7.9	--	8.1	7.8
Bicarbonate Alkalinity as CaCO3	mg/L	--	110	94	93	100
Carbonate Alkalinity as CaCO3	mg/L	--	<1.9	<2.3	<2.3	<4.6
Iron, dissolved	ug/L	--	460	450	430	390
Manganese, dissolved	ug/L	--	420	360	390	390
Molybdenum, dissolved	ug/L	--	120	120	120	120
Total Alkalinity as CaCO3	mg/L	--	110	94	93	100
Iron, total	ug/L	--	610	510	500	450
Magnesium, total	ug/L	--	1700	1500	1600	1500
Manganese, total	ug/L	--	430	360	410	390
Potassium, total	ug/L	--	3100	3200	3100	2800
Sodium, total	ug/L	--	110000	110000	110000	100000
Lithium, dissolved	ug/L	--	--	9.6	8.3	6.9

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Name: IPL - Burlington

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Parameter Name	Units	4/5/2022	10/20/2022	4/24/2023	8/1/2023	10/4/2023
Boron	ug/L	4000	4100	--	--	--
Calcium	mg/L	11	27	--	--	--
Chloride	mg/L	37	47	--	--	--
Fluoride	mg/L	<0.22	<0.22	--	--	--
Field pH	Std. Units	7.78	7.69	7.63	7.78	7.53
Sulfate	mg/L	120	190	--	--	--
Total Dissolved Solids	mg/L	360	470	--	--	--
Antimony	ug/L	<0.69	<0.69	--	--	--
Arsenic	ug/L	<0.75	<0.75	--	--	--
Barium	ug/L	46	110	--	--	--
Beryllium	ug/L	<0.27	<0.27	--	--	--
Cadmium	ug/L	0.084	<0.055	--	--	--
Chromium	ug/L	<1.1	<1.1	--	--	--
Cobalt	ug/L	<0.19	<0.19	--	--	--
Lead	ug/L	1.2	<0.24	--	--	--
Lithium	ug/L	8.5	12	7	6.2	8.6
Mercury	ug/L	<0.11	<0.11	--	--	--
Molybdenum	ug/L	120	120	4.3	5.4	3.8
Selenium	ug/L	<0.96	<0.96	--	--	--
Thallium	ug/L	<0.26	<0.26	--	--	--
Total Radium	pCi/L	0.326	1.15	--	--	--
Radium-226	pCi/L	0.326	0.268	--	--	--
Radium-228	pCi/L	-0.0921	0.883	--	--	--
Field Oxidation Potential	mV	-154	-131	-117.1	-154	-169
Field Specific Conductance	umhos/cm	547.4	791	477	487.5	503.5
Field Temperature	deg C	13.4	15.47	7.7	7.6	9.8
Groundwater Elevation	feet	522.47	508.27	520.77	519.42	519.61
Oxygen, Dissolved	mg/L	0.06	0	0.12	0.04	0.2
Turbidity	NTU	5	0.3	0.02	4.61	11.21
pH at 25 Degrees C	Std. Units	7.8	7.7	--	--	--
Bicarbonate Alkalinity as CaCO3	mg/L	150	170	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	--	--	--
Iron, dissolved	ug/L	440	1000	1100	--	--
Manganese, dissolved	ug/L	400	870	--	--	--
Molybdenum, dissolved	ug/L	120	120	--	--	--
Total Alkalinity as CaCO3	mg/L	150	170	--	--	--
Iron, total	ug/L	530	1200	--	1900	2000
Magnesium, total	ug/L	1600	4300	--	--	--
Manganese, total	ug/L	420	940	--	--	--
Potassium, total	ug/L	3100	4200	--	--	--
Sodium, total	ug/L	110000	130000	--	--	--
Lithium, dissolved	ug/L	7.7	11	--	--	--

Single Location

Name: IPL - Burlington

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Number of Sampling Dates:

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Parameter Name	Units	4/24/2024
Boron	ug/L	--
Calcium	mg/L	--
Chloride	mg/L	--
Fluoride	mg/L	--
Field pH	Std. Units	7.51
Sulfate	mg/L	--
Total Dissolved Solids	mg/L	--
Antimony	ug/L	--
Arsenic	ug/L	--
Barium	ug/L	--
Beryllium	ug/L	--
Cadmium	ug/L	--
Chromium	ug/L	--
Cobalt	ug/L	--
Lead	ug/L	--
Lithium	ug/L	9.9
Mercury	ug/L	--
Molybdenum	ug/L	5.2
Selenium	ug/L	--
Thallium	ug/L	--
Total Radium	pCi/L	--
Radium-226	pCi/L	--
Radium-228	pCi/L	--
Field Oxidation Potential	mV	-128.2
Field Specific Conductance	umhos/cm	478.7
Field Temperature	deg C	9.8
Groundwater Elevation	feet	522.38
Oxygen, Dissolved	mg/L	0.18
Turbidity	NTU	18.65
pH at 25 Degrees C	Std. Units	--
Bicarbonate Alkalinity as CaCO3	mg/L	--
Carbonate Alkalinity as CaCO3	mg/L	--
Iron, dissolved	ug/L	--
Manganese, dissolved	ug/L	--
Molybdenum, dissolved	ug/L	--
Total Alkalinity as CaCO3	mg/L	--
Iron, total	ug/L	1600
Magnesium, total	ug/L	--
Manganese, total	ug/L	--
Potassium, total	ug/L	--
Sodium, total	ug/L	--
Lithium, dissolved	ug/L	--

Single Location

Name: IPL - Burlington

Location ID:

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Number of Sampling Dates:

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Parameter Name	Units	7/1/2021	10/11/2021	2/22/2022	4/5/2022	10/20/2022
Boron	ug/L	4700	2700	4000	6700	1400
Calcium	mg/L	75	66	71	84	59
Chloride	mg/L	28	18	25	35	11
Fluoride	mg/L	<0.28	<0.28	<0.22	<0.22	<0.22
Field pH	Std. Units	7.67	7.72	7.43	7.36	7.1
Sulfate	mg/L	110	77	120	180	68
Total Dissolved Solids	mg/L	330	230	310	410	260
Antimony	ug/L	<1.1	<1.1	<2.8	<0.69	<0.69
Arsenic	ug/L	<0.75	<0.75	<0.75	<0.75	1.4
Barium	ug/L	260	310	350	450	310
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.051	0.065	<0.055	<0.055	0.055
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	0.26	<0.19	<0.19	<0.19	<0.19
Lead	ug/L	<0.21	<0.21	<0.24	<0.24	<0.24
Lithium	ug/L	9.6	7	9.4	11	6.1
Mercury	ug/L	<0.15	--	<0.11	<0.11	<0.11
Molybdenum	ug/L	40	25	37	59	32
Selenium	ug/L	<0.96	<0.96	<0.96	<0.96	<0.96
Thallium	ug/L	<0.26	<0.26	<0.26	<0.26	<0.26
Total Radium	pCi/L	0.955	1.38	0.71	1.5	1.43
Radium-226	pCi/L	0.289	0.377	0.453	0.674	0.515
Radium-228	pCi/L	0.666	1.01	0.257	0.83	0.911
Field Oxidation Potential	mV	-76.5	-130.6	211.7	-147	-34
Field Specific Conductance	umhos/cm	587.1	459.6	570	627.3	492
Field Temperature	deg C	15.3	14.4	13.1	13.5	14.11
Groundwater Elevation	feet	520.12	519.13	519.37	522.37	508.35
Oxygen, Dissolved	mg/L	0.41	0.1	0.18	0.08	0
Turbidity	NTU	1.26	10.1	2.64	6	17
pH at 25 Degrees C	Std. Units	7.6	7.6	7.5	7.5	7.6
Bicarbonate Alkalinity as CaCO3	mg/L	150	160	160	130	190
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	<4.6	<4.6	<4.6
Iron, dissolved	ug/L	1700	1200	1700	2100	1500
Manganese, dissolved	ug/L	800	330	470	770	370
Molybdenum, dissolved	ug/L	40	28	37	58	35
Total Alkalinity as CaCO3	mg/L	150	160	160	130	190
Iron, total	ug/L	2100	1300	1900	2300	3000
Magnesium, total	ug/L	15000	16000	15000	15000	14000
Manganese, total	ug/L	850	310	500	810	360
Potassium, total	ug/L	3000	1600	2200	3200	1600
Sodium, total	ug/L	23000	16000	23000	35000	19000
Lithium, dissolved	ug/L	9.5	7	7.9	10	6.7

Single Location

Name: IPL - Burlington

Location ID:

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Number of Sampling Dates:

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Parameter Name	Units	4/24/2023	8/2/2023	10/4/2023	4/24/2024
Boron	ug/L	--	--	--	--
Calcium	mg/L	--	--	--	--
Chloride	mg/L	--	--	--	--
Fluoride	mg/L	--	--	--	--
Field pH	Std. Units	7.49	7.62	7.51	7.37
Sulfate	mg/L	--	--	--	--
Total Dissolved Solids	mg/L	--	--	--	--
Antimony	ug/L	--	--	--	--
Arsenic	ug/L	--	--	--	--
Barium	ug/L	--	--	--	--
Beryllium	ug/L	--	--	--	--
Cadmium	ug/L	--	--	--	--
Chromium	ug/L	--	--	--	--
Cobalt	ug/L	--	--	--	--
Lead	ug/L	--	--	--	--
Lithium	ug/L	6.8	4.7	5	7.2
Mercury	ug/L	--	--	--	--
Molybdenum	ug/L	7.5	4.6	2.2	10
Selenium	ug/L	--	--	--	--
Thallium	ug/L	--	--	--	--
Total Radium	pCi/L	--	--	--	--
Radium-226	pCi/L	--	--	--	--
Radium-228	pCi/L	--	--	--	--
Field Oxidation Potential	mV	-48.4	-130	-141.9	-103
Field Specific Conductance	umhos/cm	434.6	435	410.1	462.9
Field Temperature	deg C	13.4	10.3	12	10.3
Groundwater Elevation	feet	520.77	518.2	518.14	520.96
Oxygen, Dissolved	mg/L	2.08	0.29	0.3	0.26
Turbidity	NTU	1.08	8.79	10.54	14.36
pH at 25 Degrees C	Std. Units	--	--	--	--
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	1400	--	--	--
Manganese, dissolved	ug/L	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, total	ug/L	--	1700	1400	1700
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-308

Number of Sampling Dates: 25

Parameter Name	Units	4/21/2016	6/6/2016	8/17/2016	10/3/2016
Boron	ug/L	4960	4980	4870	4760
Calcium	mg/L	39.8	36.8	35.1	33.5
Chloride	mg/L	72.3	65.7	53.1	47.8
Fluoride	mg/L	0.16	0.095	0.078	0.13
Field pH	Std. Units	9.77	9.76	9.95	10.17
Sulfate	mg/L	222	187	180	194
Total Dissolved Solids	mg/L	577	548	541	495
Antimony	ug/L	0.29	0.34	0.22	0.38
Arsenic	ug/L	83.8	80.5	84.2	82.6
Barium	ug/L	130	110	110	89.8
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08
Cadmium	ug/L	<0.029	<0.029	<0.029	0.097
Chromium	ug/L	0.46	0.41	0.52	<0.34
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5
Lead	ug/L	0.33	<0.19	<0.19	0.28
Lithium	ug/L	45.6	45.8	41.5	41.2
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039
Molybdenum	ug/L	153	139	133	138
Selenium	ug/L	0.69	0.47	0.58	0.45
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5
Total Radium	pCi/L	0.712	1.22	0.376	0.549
Radium-226	pCi/L	0.0744	0	0.0777	0.312
Radium-228	pCi/L	0.638	1.22	0.298	0.237
Collected By		--	0	0	--
Field Oxidation Potential	mV	-77.2	-149	-213.7	-239.6
Field Specific Conductance	umhos/cm	712	1678	1533	1306
Field Temperature	deg C	14.2	14.2	14.3	14.6
Groundwater Elevation	feet	521.93	521.43	521.56	527.62
Oxygen, Dissolved	mg/L	0.09	0.81	0.16	0.55
Turbidity	NTU	1.83	0.42	0.34	0.73
Collected Date		--	--	--	--
Collected Time		--	--	--	--
pH at 25 Degrees C	Std. Units	9.4	9.6	9.3	9.7
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--

Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, total	ug/L	--	--	--	--
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-308

Number of Sampling Dates: 25

Parameter Name	Units	1/10/2017	4/4/2017	6/13/2017	8/16/2017
Boron	ug/L	4980	5160	4680	4910
Calcium	mg/L	33.2	34.2	30.1	32.3
Chloride	mg/L	43.5	42.6	40.6	39.8
Fluoride	mg/L	0.084	0.11	0.12	0.14
Field pH	Std. Units	10.21	10.34	9.99	10.15
Sulfate	mg/L	192	175	188	181
Total Dissolved Solids	mg/L	474	494	501	483
Antimony	ug/L	0.33	0.28	0.32	0.3
Arsenic	ug/L	86.4	83.1	80.3	77.9
Barium	ug/L	90.6	85.1	81.5	76.2
Beryllium	ug/L	<0.08	0.017	<0.012	<0.012
Cadmium	ug/L	0.034	<0.018	0.035	<0.018
Chromium	ug/L	0.37	0.22	0.16	0.38
Cobalt	ug/L	<0.5	0.06	0.068	0.069
Lead	ug/L	0.27	0.21	0.34	0.33
Lithium	ug/L	47	46.9	42.4	44.1
Mercury	ug/L	<0.055	0.047	<0.046	<0.046
Molybdenum	ug/L	140	140	136	137
Selenium	ug/L	0.68	0.4	0.3	0.47
Thallium	ug/L	<0.5	<0.036	<0.036	<0.036
Total Radium	pCi/L	0	0.854	0.881	0.229
Radium-226	pCi/L	0	0.213	0.4	0.063
Radium-228	pCi/L	-0.059	0.641	0.481	0.166
Collected By		0	0	0	0
Field Oxidation Potential	mV	-163.8	-300.6	-162.3	-139.8
Field Specific Conductance	umhos/cm	1303	1258	514.6	1039
Field Temperature	deg C	13.7	14.1	14.9	14.5
Groundwater Elevation	feet	525.65	523.07	522.9	519.8
Oxygen, Dissolved	mg/L	0.11	0.16	0.2	0.21
Turbidity	NTU	1.27	0.43	1.56	0.61
Collected Date		--	--	--	--
Collected Time		--	--	--	--
pH at 25 Degrees C	Std. Units	9.4	9.2	9.5	9.4
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--

Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, total	ug/L	--	--	--	--
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-308

Number of Sampling Dates: 25

Parameter Name	Units	10/17/2017	5/8/2018	8/13/2018	10/10/2018
Boron	ug/L	4850	5030	5070	4710
Calcium	mg/L	32.6	28.7	28.7	28.5
Chloride	mg/L	38.2	36.2	36.7	35.9
Fluoride	mg/L	0.17	0.17	0.16	<0.19
Field pH	Std. Units	9.75	9.75	9.86	9.82
Sulfate	mg/L	177	164	167	193
Total Dissolved Solids	mg/L	472	494	468	440
Antimony	ug/L	--	0.32	0.32	0.36
Arsenic	ug/L	--	79.1	82.5	79.5
Barium	ug/L	--	64.3	67.1	66.5
Beryllium	ug/L	--	<0.012	<0.12	<0.089
Cadmium	ug/L	--	0.02	<0.07	0.058
Chromium	ug/L	--	0.25	<0.19	0.16
Cobalt	ug/L	--	0.057	<0.15	0.074
Lead	ug/L	--	0.25	0.27	0.45
Lithium	ug/L	--	46	52	43.6
Mercury	ug/L	--	<0.09	--	<0.09
Molybdenum	ug/L	--	140	140	145
Selenium	ug/L	--	0.31	0.43	0.4
Thallium	ug/L	--	<0.036	--	<0.099
Total Radium	pCi/L	--	0.283	0.0726	0.334
Radium-226	pCi/L	--	0.182	0.0726	0.275
Radium-228	pCi/L	--	0.101	-0.068	0.0585
Collected By		0	--	--	--
Field Oxidation Potential	mV	-109.4	-158.2	-238	-201
Field Specific Conductance	umhos/cm	689	698	710	709
Field Temperature	deg C	14.6	14.4	15.4	15.3
Groundwater Elevation	feet	522.46	525.62	520.22	528.98
Oxygen, Dissolved	mg/L	0.09	1.5	0.11	0.2
Turbidity	NTU	0.6	1.26	4.63	1.35
Collected Date		--	--	--	--
Collected Time		--	--	--	--
pH at 25 Degrees C	Std. Units	9.4	9.4	9.4	9.5
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--

Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, total	ug/L	--	--	--	--
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-308

Number of Sampling Dates: 25

Parameter Name	Units	3/12/2019	4/3/2019	10/10/2019	6/4/2020
Boron	ug/L	--	4300	4500	4700
Calcium	mg/L	--	32	30	34
Chloride	mg/L	--	38	40	58
Fluoride	mg/L	--	0.37	<0.23	0.37
Field pH	Std. Units	7.72	9.97	9.42	9.65
Sulfate	mg/L	--	170	160	190
Total Dissolved Solids	mg/L	--	490	400	470
Antimony	ug/L	--	<0.53	<0.53	<0.58
Arsenic	ug/L	--	78	72	76
Barium	ug/L	--	70	70	66
Beryllium	ug/L	--	<0.27	<0.27	<0.27
Cadmium	ug/L	--	<0.077	<0.039	0.044
Chromium	ug/L	--	<0.98	<0.98	<1.1
Cobalt	ug/L	--	<0.091	<0.091	<0.091
Lead	ug/L	--	<0.27	<0.27	0.4
Lithium	ug/L	48.9	50	52	48
Mercury	ug/L	--	<0.1	--	0.13
Molybdenum	ug/L	135	110	120	120
Selenium	ug/L	--	<1	<1	<1
Thallium	ug/L	--	<0.27	--	<0.26
Total Radium	pCi/L	--	0.328	0.288	<0.42/0.268
Radium-226	pCi/L	--	0.0363	0.202	<0.118/0.109
Radium-228	pCi/L	--	0.291	0.0862	<0.42/0.159
Collected By		0	--	--	--
Field Oxidation Potential	mV	-60.7	-142.3	-82.6	28
Field Specific Conductance	umhos/cm	500	681	671	713
Field Temperature	deg C	14.06	14.04	14.64	15.4
Groundwater Elevation	feet	523.13	528.39	--	524.1
Oxygen, Dissolved	mg/L	2.57	1.16	0.21	0.23
Turbidity	NTU	1.68	1.66	2.93	13.38
Collected Date		3	--	--	--
Collected Time		9	--	--	--
pH at 25 Degrees C	Std. Units	--	9.6	9.9	9.6
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--

Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, total	ug/L	--	--	--	--
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-308

Number of Sampling Dates: 25

Parameter Name	Units	10/14/2020	3/2/2021	4/20/2021	10/12/2021
Boron	ug/L	4500	--	4300	3900
Calcium	mg/L	37	--	38	38
Chloride	mg/L	45	--	39	41
Fluoride	mg/L	<0.23	--	<0.28	<0.28
Field pH	Std. Units	9.7	9.4	9.56	9.97
Sulfate	mg/L	160	--	140	190
Total Dissolved Solids	mg/L	460	--	430	410
Antimony	ug/L	<0.51	--	<1.1	<1.1
Arsenic	ug/L	69	--	73	59
Barium	ug/L	74	--	79	82
Beryllium	ug/L	<0.27	--	<0.27	<0.27
Cadmium	ug/L	<0.049	--	<0.051	<0.051
Chromium	ug/L	<1.1	--	<1.1	<1.1
Cobalt	ug/L	<0.091	--	<0.091	<0.19
Lead	ug/L	0.15	--	<0.21	<0.21
Lithium	ug/L	51	--	54	58
Mercury	ug/L	<0.1	--	<0.15	--
Molybdenum	ug/L	110	--	120	81
Selenium	ug/L	<1	--	<0.96	<0.96
Thallium	ug/L	--	--	<0.26	<0.26
Total Radium	pCi/L	0.106	--	0.0966	-0.00135
Radium-226	pCi/L	-0.0615	--	-0.0307	-0.00135
Radium-228	pCi/L	0.106	--	0.0966	0
Collected By		--	--	--	--
Field Oxidation Potential	mV	-264.6	-207.2	-172.9	-219.8
Field Specific Conductance	umhos/cm	682	695	690	728
Field Temperature	deg C	14.7	13.9	14.1	15
Groundwater Elevation	feet	519.02	520.7	522.57	519.25
Oxygen, Dissolved	mg/L	0.1	0.11	0.08	0.06
Turbidity	NTU	0.15	0.02	1.77	8.8
Collected Date		--	--	--	--
Collected Time		--	--	--	--
pH at 25 Degrees C	Std. Units	9.6	--	9.8	10
Bicarbonate Alkalinity as CaCO3	mg/L	54	69	38	4.7
Carbonate Alkalinity as CaCO3	mg/L	89	39	75	95
Iron, dissolved	ug/L	<50	<36	<36	<36
Manganese, dissolved	ug/L	290	210	250	30

Molybdenum, dissolved	ug/L	110	110	110	82
Total Alkalinity as CaCO3	mg/L	140	110	110	99
Iron, total	ug/L	<50	<36	<36	<36
Magnesium, total	ug/L	1700	1600	1800	420
Manganese, total	ug/L	280	210	250	32
Potassium, total	ug/L	35000	38000	37000	40000
Sodium, total	ug/L	84000	85000	88000	79000
Lithium, dissolved	ug/L	53	54	51	57

Single Location

Name: IPL - Burlington

Location ID: MW-308

Number of Sampling Dates: 25

Parameter Name	Units	4/4/2022	4/24/2023	8/1/2023	10/3/2023	4/23/2024
Boron	ug/L	4400	5700	6800	5900	5700
Calcium	mg/L	42	61	140	150	150
Chloride	mg/L	37	26	37	35	50
Fluoride	mg/L	<0.22	<0.38	<0.38	<0.38	<0.38
Field pH	Std. Units	9.58	7.49	7.33	7.14	7.16
Sulfate	mg/L	190	240	570	700	700
Total Dissolved Solids	mg/L	470	650	1000	1300	1200
Antimony	ug/L	<0.69	<1	<1	<1	<1
Arsenic	ug/L	62	1.9	5.7	5.6	5.3
Barium	ug/L	85	87	150	92	75
Beryllium	ug/L	<0.27	<0.33	<0.33	<0.33	<0.33
Cadmium	ug/L	<0.055	0.15	0.12	0.17	0.17
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1	<1.2
Cobalt	ug/L	<0.19	0.18	4.1	4.5	1.4
Lead	ug/L	<0.24	<0.24	0.27	<0.24	<0.26
Lithium	ug/L	57	73	180	220	240
Mercury	ug/L	<0.11	<0.14	<0.14	<0.14	<0.11
Molybdenum	ug/L	100	480	220	260	560
Selenium	ug/L	<0.96	<1.4	<1.4	<1.4	<1.4
Thallium	ug/L	<0.26	<0.26	<0.26	<0.26	<0.57
Total Radium	pCi/L	0.321	1.14	--	0.344	0.602
Radium-226	pCi/L	0.321	0.096	--	0.0254	0.17
Radium-228	pCi/L	-0.143	1.05	--	0.319	0.432
Collected By		--	--	--	--	--
Field Oxidation Potential	mV	-246.6	122.6	-121.7	-143.1	-69.9
Field Specific Conductance	umhos/cm	680	994	1483	1766	1672
Field Temperature	deg C	13.9	14.2	13.2	13.2	12.2
Groundwater Elevation	feet	522.61	521.08	518.22	520.25	521.36
Oxygen, Dissolved	mg/L	0.08	0.1	0.44	0.19	0.26
Turbidity	NTU	5	10.8	0.98	2.04	8.4
Collected Date		--	--	--	--	--
Collected Time		--	--	--	--	--
pH at 25 Degrees C	Std. Units	9.6	7.6	7.3	7.6	7.4
Bicarbonate Alkalinity as CaCO3	mg/L	21	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	82	--	--	--	--
Iron, dissolved	ug/L	<36	54	--	--	--
Manganese, dissolved	ug/L	120	--	--	--	--

Molybdenum, dissolved	ug/L	110	--	--	--	--
Total Alkalinity as CaCO3	mg/L	100	--	--	--	--
Iron, total	ug/L	<36	--	5800	6000	2200
Magnesium, total	ug/L	1300	--	--	--	--
Manganese, total	ug/L	130	--	--	--	--
Potassium, total	ug/L	39000	--	--	--	--
Sodium, total	ug/L	87000	--	--	--	--
Lithium, dissolved	ug/L	54	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-309
 Number of Sampling Dates: 24

Parameter Name	Units	4/21/2016	6/7/2016	8/16/2016	10/3/2016	1/10/2017	4/4/2017
Boron	ug/L	5270	5590	5180	5140	4880	3800
Calcium	mg/L	118	100	99.2	126	141	156
Chloride	mg/L	145	152	126	117	104	82.7
Fluoride	mg/L	0.57	0.36	0.35	0.39	0.39	0.41
Field pH	Std. Units	7.33	7.43	7.66	7.66	7.37	7.31
Sulfate	mg/L	49	51.2	100	104	127	198
Total Dissolved Solids	mg/L	768	728	726	772	839	955
Antimony	ug/L	0.087	0.12	<0.058	0.09	<0.058	0.039
Arsenic	ug/L	31.5	27.3	29.3	31.5	34.5	30
Barium	ug/L	384	337	316	364	362	264
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.037
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018
Chromium	ug/L	0.38	0.35	0.53	<0.34	0.4	0.23
Cobalt	ug/L	2.1	1.2	0.98	1.1	1.7	6.5
Lead	ug/L	<0.19	<0.19	<0.19	<0.19	<0.19	<0.033
Lithium	ug/L	<4.9	<4.9	<4.9	<4.9	<4.9	5
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046
Molybdenum	ug/L	30.7	31.1	43.5	49.1	44.8	41.5
Selenium	ug/L	0.39	0.25	0.24	0.31	0.25	0.44
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036
Total Radium	pCi/L	2.55	2.28	1.74	1.38	0.455	1.76
Radium-226	pCi/L	0.991	0.561	0.67	0.694	0.65	0.573
Radium-228	pCi/L	1.56	1.72	1.07	0.69	0.39	1.19
Collected By		--	0	0	--	0	0
Field Oxidation Potential	mV	-138.9	-121	-150.9	-176.2	-131.4	-138
Field Specific Conductance	umhos/cm	1034	2369	228.5	2265	2502	2528
Field Temperature	deg C	13.4	13.4	13.8	14.6	14.3	13.9
Groundwater Elevation	feet	522.09	521.39	521.7	527.57	525.57	523.1
Oxygen, Dissolved	mg/L	0.1	0.78	2.36	0.54	0.11	0.2
Turbidity	NTU	3.93	0.59	0.58	0.72	5.84	15.11
pH at 25 Degrees C	Std. Units	7	7	7	7.2	7.3	7.4
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-309

Number of Sampling Dates:

24

Parameter Name	Units	6/13/2017	8/16/2017	10/17/2017	5/8/2018	8/14/2018
Boron	ug/L	4070	4310	4400	4720	4930
Calcium	mg/L	118	130	101	83.6	74.1
Chloride	mg/L	89.5	92.5	85.4	112	111
Fluoride	mg/L	0.5	0.4	0.47	0.4	0.43
Field pH	Std. Units	7.1	7.62	8.5	7.25	7.39
Sulfate	mg/L	171	136	149	107	98.9
Total Dissolved Solids	mg/L	841	859	671	688	668
Antimony	ug/L	0.03	0.051	--	<0.026	<0.15
Arsenic	ug/L	36.2	34.6	--	28.2	33.3
Barium	ug/L	256	274	--	154	180
Beryllium	ug/L	0.012	<0.012	--	0.012	<0.12
Cadmium	ug/L	0.021	<0.018	--	0.021	<0.07
Chromium	ug/L	0.18	0.49	--	0.32	0.22
Cobalt	ug/L	2.9	1.3	--	4.9	0.82
Lead	ug/L	0.12	0.26	--	0.045	<0.12
Lithium	ug/L	<2.9	6.3	--	<4.6	<4.6
Mercury	ug/L	<0.046	<0.046	--	<0.09	--
Molybdenum	ug/L	60.8	67.5	--	43.4	52.8
Selenium	ug/L	0.35	0.34	--	0.3	0.31
Thallium	ug/L	<0.036	<0.036	--	<0.036	--
Total Radium	pCi/L	0.846	1.09	--	0.218	0.96
Radium-226	pCi/L	0.292	0.615	--	-0.061	0.28
Radium-228	pCi/L	0.554	0.47	--	0.218	0.68
Collected By		0	0	0	--	--
Field Oxidation Potential	mV	-60.7	-112.8	-31	-139.2	-143
Field Specific Conductance	umhos/cm	936	1853	1058	813	1093
Field Temperature	deg C	14.2	14.6	14.6	13.5	14.2
Groundwater Elevation	feet	522.91	519.93	522.67	525.54	520.22
Oxygen, Dissolved	mg/L	0.15	0.2	0.08	0.05	0.14
Turbidity	NTU	4.62	4.61	3.08	6.49	12.67
pH at 25 Degrees C	Std. Units	6.9	7.2	7	7.4	7.3
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-309
 Number of Sampling Dates: 24

Parameter Name	Units	10/10/2018	4/4/2019	10/11/2019	6/3/2020	10/14/2020
Boron	ug/L	4720	4200	4300	4400	4400
Calcium	mg/L	72.4	73	68	82	59
Chloride	mg/L	105	100	74	84	64
Fluoride	mg/L	0.4	0.71	0.29	0.58	<0.23
Field pH	Std. Units	7.46	7.45	7.19	7.09	7.61
Sulfate	mg/L	111	78	160	180	160
Total Dissolved Solids	mg/L	650	650	610	730	550
Antimony	ug/L	<0.078	<0.53	<0.53	<0.58	<0.51
Arsenic	ug/L	35.6	30	34	34	33
Barium	ug/L	194	130	180	260	220
Beryllium	ug/L	<0.089	<0.27	<0.54	<0.27	<0.27
Cadmium	ug/L	<0.033	<0.077	<0.039	<0.039	<0.049
Chromium	ug/L	0.18	<0.98	<0.98	<1.1	<1.1
Cobalt	ug/L	0.68	1.3	0.52	0.57	0.33
Lead	ug/L	<0.13	<0.27	<0.27	<0.27	<0.11
Lithium	ug/L	<4.6	3.3	<5.4	2.4	<2.5
Mercury	ug/L	<0.09	<0.1	--	<0.1	<0.1
Molybdenum	ug/L	71.8	47	90	87	100
Selenium	ug/L	0.29	<1	<1	<1	<1
Thallium	ug/L	<0.099	<0.27	--	<0.26	--
Total Radium	pCi/L	1.05	0.42	0.596	<0.398/0.296	0.372
Radium-226	pCi/L	0.127	0.126	0.274	0.182/0.182	0.142
Radium-228	pCi/L	0.919	0.295	0.322	<0.398/0.114	0.23
Collected By		--	--	--	--	--
Field Oxidation Potential	mV	-53.5	-99.4	-165.6	37	-208.4
Field Specific Conductance	umhos/cm	1038	997	1040	1086	851
Field Temperature	deg C	15.67	12.6	13.73	14.8	14.3
Groundwater Elevation	feet	528.93	528.4	--	524.06	519.28
Oxygen, Dissolved	mg/L	0.18	0.51	0.21	0.23	0.14
Turbidity	NTU	34.45	20.1	8.93	18.88	18.9
pH at 25 Degrees C	Std. Units	7.1	7.1	7.2	7.2	7.2
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	190
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	<3.8
Iron, dissolved	ug/L	--	--	--	--	11000
Manganese, dissolved	ug/L	--	--	--	--	3400
Molybdenum, dissolved	ug/L	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	190
Iron, total	ug/L	--	--	--	--	12000
Magnesium, total	ug/L	--	--	--	--	18000
Manganese, total	ug/L	--	--	--	--	3200
Potassium, total	ug/L	--	--	--	--	1800
Sodium, total	ug/L	--	--	--	--	90000
Lithium, dissolved	ug/L	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-309

Number of Sampling Dates:

24

Parameter Name	Units	3/1/2021	4/19/2021	10/12/2021	4/4/2022	4/27/2023	8/2/2023
Boron	ug/L	--	5000	4400	3900	12000	14000
Calcium	mg/L	--	76	71	59	82	94
Chloride	mg/L	--	85	79	53	39	28
Fluoride	mg/L	--	0.36	0.39	<0.22	0.43	<0.38
Field pH	Std. Units	7.22	7.26	7.18	7.18	6.93	7.06
Sulfate	mg/L	--	57	120	99	210	140
Total Dissolved Solids	mg/L	--	570	470	450	550	530
Antimony	ug/L	--	<1.1	<1.1	<0.69	<1	<1
Arsenic	ug/L	--	30	24	21	21	22
Barium	ug/L	--	340	370	260	220	190
Beryllium	ug/L	--	<0.27	<0.27	<0.27	<0.33	<0.33
Cadmium	ug/L	--	<0.051	<0.051	<0.055	<0.1	<0.1
Chromium	ug/L	--	<1.1	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	--	0.39	0.29	0.42	1.3	0.61
Lead	ug/L	--	<0.21	<0.21	<0.24	0.41	<0.24
Lithium	ug/L	--	3.8	2.8	2.9	4.9	3.5
Mercury	ug/L	--	<0.15	--	<0.11	<0.14	<0.14
Molybdenum	ug/L	--	50	39	62	69	84
Selenium	ug/L	--	<0.96	<0.96	<0.96	<1.4	<1.4
Thallium	ug/L	--	<0.26	<0.26	<0.26	<0.26	<0.26
Total Radium	pCi/L	--	0.509	0.618	0.847	1.13	--
Radium-226	pCi/L	--	0.336	0.553	0.358	0.443	--
Radium-228	pCi/L	--	0.172	0.065	0.489	0.688	--
Collected By		--	--	--	--	--	--
Field Oxidation Potential	mV	-196.3	-170.7	-155.1	-139.4	-117.2	-155
Field Specific Conductance	umhos/cm	816	1017	927	748	1004	890
Field Temperature	deg C	13.7	13.2	15.3	13	13	13.7
Groundwater Elevation	feet	520.75	522.72	519.43	522.74	523.02	518.22
Oxygen, Dissolved	mg/L	0.12	0.16	0.17	0.24	0.07	0
Turbidity	NTU	13.8	21.2	19.6	21	55.8	21.44
pH at 25 Degrees C	Std. Units	--	7.3	7.2	7.3	6.9	7.1
Bicarbonate Alkalinity as CaCO3	mg/L	250	310	280	240	--	--
Carbonate Alkalinity as CaCO3	mg/L	<2.3	<4.6	<4.6	<4.6	--	--
Iron, dissolved	ug/L	9300	12000	14000	9100	22000	--
Manganese, dissolved	ug/L	2500	3700	3500	2800	--	--
Molybdenum, dissolved	ug/L	56	49	39	59	--	--
Total Alkalinity as CaCO3	mg/L	250	310	280	240	--	--
Iron, total	ug/L	11000	14000	15000	11000	--	22000
Magnesium, total	ug/L	18000	24000	22000	18000	--	--
Manganese, total	ug/L	2500	3700	3500	3000	--	--
Potassium, total	ug/L	2600	2900	2600	2100	--	--
Sodium, total	ug/L	97000	100000	79000	81000	--	--
Lithium, dissolved	ug/L	--	--	2.8	2.7	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-309

Number of Sampling Dates: 24

Parameter Name	Units	10/4/2023	4/25/2024
Boron	ug/L	11000	12000
Calcium	mg/L	310	84
Chloride	mg/L	29	29
Fluoride	mg/L	<0.38	<0.38
Field pH	Std. Units	6.92	6.88
Sulfate	mg/L	83	120
Total Dissolved Solids	mg/L	550	530
Antimony	ug/L	<4	<1
Arsenic	ug/L	89	21
Barium	ug/L	440	130
Beryllium	ug/L	<1.3	<0.33
Cadmium	ug/L	<0.4	<0.1
Chromium	ug/L	<4.4	<1.2
Cobalt	ug/L	0.95	0.17
Lead	ug/L	<0.96	<0.26
Lithium	ug/L	15	4.8
Mercury	ug/L	<0.14	<0.11
Molybdenum	ug/L	37	44
Selenium	ug/L	<5.6	<1.4
Thallium	ug/L	<1	<0.57
Total Radium	pCi/L	4.77	0.521
Radium-226	pCi/L	0.215	0.217
Radium-228	pCi/L	4.56	0.304
Collected By		--	--
Field Oxidation Potential	mV	-172.4	-118.3
Field Specific Conductance	umhos/cm	1040	908
Field Temperature	deg C	15	13.4
Groundwater Elevation	feet	518.42	521.18
Oxygen, Dissolved	mg/L	0.18	0.2
Turbidity	NTU	6.45	22.15
pH at 25 Degrees C	Std. Units	7.8	7.1
Bicarbonate Alkalinity as CaCO3	mg/L	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--
Iron, dissolved	ug/L	--	--
Manganese, dissolved	ug/L	--	--
Molybdenum, dissolved	ug/L	--	--
Total Alkalinity as CaCO3	mg/L	--	--
Iron, total	ug/L	75000	20000
Magnesium, total	ug/L	--	--
Manganese, total	ug/L	--	--
Potassium, total	ug/L	--	--
Sodium, total	ug/L	--	--
Lithium, dissolved	ug/L	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-310
 Number of Sampling Dates: 23

Parameter Name	Units	4/21/2016	6/7/2016	8/16/2016	10/3/2016	1/9/2017
Boron	ug/L	437	422	326	400	413
Calcium	mg/L	166	181	140	167	145
Chloride	mg/L	154	196	96.9	143	113
Fluoride	mg/L	0.39	0.28	0.29	0.34	0.33
Field pH	Std. Units	7.37	7.21	7.7	7.71	7.38
Sulfate	mg/L	53.1	47.7	54	62.6	48.5
Total Dissolved Solids	mg/L	879	1040	703	743	653
Antimony	ug/L	<0.058	0.12	<0.058	0.099	<0.058
Arsenic	ug/L	60.6	60.2	64.1	74	72.6
Barium	ug/L	813	829	589	734	605
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029
Chromium	ug/L	<0.34	<0.34	0.85	0.5	0.45
Cobalt	ug/L	2.6	2.7	1.8	2	1.6
Lead	ug/L	<0.19	<0.19	<0.19	<0.19	<0.19
Lithium	ug/L	<4.9	<4.9	<9.8	<4.9	<4.9
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055
Molybdenum	ug/L	5.1	3.9	4.4	4.8	4.4
Selenium	ug/L	<0.18	<0.18	<0.18	<0.18	<0.18
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Total Radium	pCi/L	2.41	1.28	1.99	1.34	0.941
Radium-226	pCi/L	0.951	0.839	0.644	0.796	0.527
Radium-228	pCi/L	1.46	0.437	1.35	0.54	0.414
Collected By		--	0	0	--	0
Field Oxidation Potential	mV	-125.4	-122	-172.9	-184	-161.2
Field Specific Conductance	umhos/cm	1082	3170	2224	2295	2116
Field Temperature	deg C	11.7	12.2	15.1	16.6	14.3
Groundwater Elevation	feet	525.43	524.13	524.84	527.58	525.78
Oxygen, Dissolved	mg/L	0.19	0.98	2.4	0.43	0.19
Turbidity	NTU	3	0.2	0.83	4.23	4.64
pH at 25 Degrees C	Std. Units	7.1	7	7	7.2	7.2
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--

Iron, total	ug/L	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-310
 Number of Sampling Dates: 23

Parameter Name	Units	4/4/2017	6/12/2017	8/16/2017	10/16/2017
Boron	ug/L	503	2210	365	305
Calcium	mg/L	180	116	139	105
Chloride	mg/L	187	94.7	121	38.3
Fluoride	mg/L	0.26	0.32	0.32	0.39
Field pH	Std. Units	7.5	7.3	7.5	7.92
Sulfate	mg/L	34.3	101	41.3	35.1
Total Dissolved Solids	mg/L	853	625	760	445
Antimony	ug/L	0.032	0.048	0.1	--
Arsenic	ug/L	79.8	64	68.2	--
Barium	ug/L	825	586	665	--
Beryllium	ug/L	0.019	<0.012	<0.012	--
Cadmium	ug/L	<0.018	0.025	<0.018	--
Chromium	ug/L	0.19	0.2	0.52	--
Cobalt	ug/L	1.9	1.4	1.8	--
Lead	ug/L	<0.033	0.081	0.64	--
Lithium	ug/L	<2.9	<2.9	7.7	--
Mercury	ug/L	<0.046	<0.046	<0.046	--
Molybdenum	ug/L	3.4	10	4.1	--
Selenium	ug/L	0.24	0.18	0.2	--
Thallium	ug/L	<0.036	<0.036	0.35	--
Total Radium	pCi/L	3.17	1.7	2.21	--
Radium-226	pCi/L	0.175	0.505	0.793	--
Radium-228	pCi/L	2.99	1.19	1.42	--
Collected By		0	0	0	0
Field Oxidation Potential	mV	-175.4	-101.1	102.8	-63.6
Field Specific Conductance	umhos/cm	2528	742	1783	791
Field Temperature	deg C	12	13.5	15.4	16.6
Groundwater Elevation	feet	525.52	524.94	523.89	525.49
Oxygen, Dissolved	mg/L	0.2	0.13	0.21	0.16
Turbidity	NTU	2.23	2.55	1.2	2.86
pH at 25 Degrees C	Std. Units	7.3	6.9	7.1	7.1
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--

Iron, total	ug/L	--	--	--	--
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-310
 Number of Sampling Dates: 23

Parameter Name	Units	5/8/2018	8/14/2018	10/10/2018	4/4/2019
Boron	ug/L	217	256	268	560
Calcium	mg/L	104	102	107	120
Chloride	mg/L	24.4	33.8	67.1	88
Fluoride	mg/L	0.33	0.39	0.4	0.55
Field pH	Std. Units	7.46	7.44	7.2	7.84
Sulfate	mg/L	28.8	27.2	37.9	21
Total Dissolved Solids	mg/L	462	472	512	600
Antimony	ug/L	<0.026	<0.15	<0.078	<0.53
Arsenic	ug/L	57.8	56.2	62.1	65
Barium	ug/L	403	398	450	560
Beryllium	ug/L	<0.012	<0.12	<0.089	<0.27
Cadmium	ug/L	<0.018	<0.07	<0.033	<0.077
Chromium	ug/L	0.16	<0.19	0.082	<0.98
Cobalt	ug/L	1.2	1.4	1.4	1.9
Lead	ug/L	0.044	<0.12	<0.13	<0.27
Lithium	ug/L	<4.6	5.3	<4.6	<2.7
Mercury	ug/L	<0.09	--	<0.09	<0.1
Molybdenum	ug/L	4.2	4	4.6	5.2
Selenium	ug/L	0.14	<0.16	0.19	<1
Thallium	ug/L	<0.036	--	<0.099	<0.27
Total Radium	pCi/L	0.755	1.55	2.56	1.19
Radium-226	pCi/L	0	0.616	1.1	0.471
Radium-228	pCi/L	0.755	0.938	1.46	0.724
Collected By		--	--	--	--
Field Oxidation Potential	mV	-198.8	-194	-166	-175.8
Field Specific Conductance	umhos/cm	594.6	840	938	1034
Field Temperature	deg C	11.1	15	17	10.8
Groundwater Elevation	feet	525.79	523.69	529	528.62
Oxygen, Dissolved	mg/L	0.14	0.05	0.1	1.12
Turbidity	NTU	12.81	3.11	0	16.7
pH at 25 Degrees C	Std. Units	7.4	7.3	7.1	7
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--

Iron, total	ug/L	--	--	--	--
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-310
 Number of Sampling Dates: 23

Parameter Name	Units	10/11/2019	6/2/2020	10/14/2020	4/19/2021
Boron	ug/L	380	500	290	220
Calcium	mg/L	120	130	92	190
Chloride	mg/L	59	87	17	16
Fluoride	mg/L	0.34	0.65	<0.23	0.37
Field pH	Std. Units	6.95	7.3	7.34	7.21
Sulfate	mg/L	51	100	19	55
Total Dissolved Solids	mg/L	410	590	390	370
Antimony	ug/L	<0.53	<0.58	1.9	<1.1
Arsenic	ug/L	61	55	63	16
Barium	ug/L	500	550	400	280
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.039	<0.039	<0.049	<0.051
Chromium	ug/L	<0.98	<1.1	<1.1	<1.1
Cobalt	ug/L	1.9	2.3	1.5	0.29
Lead	ug/L	<0.27	<0.27	<0.11	<0.21
Lithium	ug/L	<2.7	<2.3	<2.5	<2.5
Mercury	ug/L	--	<0.1	<0.1	<0.15
Molybdenum	ug/L	6	5.8	3.6	14
Selenium	ug/L	<1	<1	<1	<0.96
Thallium	ug/L	--	<0.26	--	<0.26
Total Radium	pCi/L	0.49	0.844/0.844	0.552	0.869
Radium-226	pCi/L	0.473	0.457/0.457	0.333	0.41
Radium-228	pCi/L	0.0174	0.387/0.387	0.219	0.46
Collected By		--	--	--	--
Field Oxidation Potential	mV	-189.7	38.6	-223.6	-193.2
Field Specific Conductance	umhos/cm	961	881	711	735
Field Temperature	deg C	15.88	12.8	16.4	10.8
Groundwater Elevation	feet	--	525.36	523.81	525.46
Oxygen, Dissolved	mg/L	0.28	0.13	0.08	0.17
Turbidity	NTU	5.23	17.82	3.79	2.57
pH at 25 Degrees C	Std. Units	7.2	7.1	7.2	7.3
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	330	310
Carbonate Alkalinity as CaCO3	mg/L	--	--	<3.8	<4.6
Iron, dissolved	ug/L	--	--	16000	20000
Manganese, dissolved	ug/L	--	--	4000	4200
Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	330	310

Iron, total	ug/L	--	--	18000	20000
Magnesium, total	ug/L	--	--	24000	25000
Manganese, total	ug/L	--	--	4400	4300
Potassium, total	ug/L	--	--	2700	2100
Sodium, total	ug/L	--	--	13000	11000
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-310

Number of Sampling Dates: 23

Parameter Name	Units	10/12/2021	4/4/2022	4/27/2023	8/3/2023
Boron	ug/L	310	230	150	260
Calcium	mg/L	84	80	120	170
Chloride	mg/L	14	10	9.7	17
Fluoride	mg/L	<0.28	<0.22	0.39	<0.38
Field pH	Std. Units	7.22	7.38	7.13	7.1
Sulfate	mg/L	55	74	340	340
Total Dissolved Solids	mg/L	280	320	580	730
Antimony	ug/L	<1.1	<0.69	<1	<1
Arsenic	ug/L	63	52	32	47
Barium	ug/L	290	270	330	410
Beryllium	ug/L	<0.27	<0.27	<0.33	<0.33
Cadmium	ug/L	<0.051	<0.055	<0.1	<0.1
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	1.4	1.2	3.1	3.8
Lead	ug/L	<0.21	<0.24	<0.24	<0.24
Lithium	ug/L	<2.5	<2.5	<2.5	<2.5
Mercury	ug/L	--	<0.11	<0.14	<0.14
Molybdenum	ug/L	4.9	5.2	1.9	2.7
Selenium	ug/L	<0.96	<0.96	<1.4	<1.4
Thallium	ug/L	<0.26	<0.26	<0.26	<0.26
Total Radium	pCi/L	1.25	0.838	0.696	--
Radium-226	pCi/L	0.161	0.22	0.388	--
Radium-228	pCi/L	1.09	0.618	0.308	--
Collected By		--	--	--	--
Field Oxidation Potential	mV	-181.6	-177.3	-146.4	-174.9
Field Specific Conductance	umhos/cm	668	548.8	999	1168
Field Temperature	deg C	17.3	10.6	10.6	15.7
Groundwater Elevation	feet	524.69	525.44	518.44	520.29
Oxygen, Dissolved	mg/L	0.18	0.14	0.23	0.03
Turbidity	NTU	11.4	19	11.8	7.38
pH at 25 Degrees C	Std. Units	7.2	7.2	7	7
Bicarbonate Alkalinity as CaCO3	mg/L	280	240	--	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	--	--
Iron, dissolved	ug/L	15000	15000	24000	--
Manganese, dissolved	ug/L	3900	3700	--	--
Molybdenum, dissolved	ug/L	5.2	5.6	--	--
Total Alkalinity as CaCO3	mg/L	280	240	--	--

Iron, total	ug/L	15000	16000	--	31000
Magnesium, total	ug/L	20000	18000	--	--
Manganese, total	ug/L	3900	3800	--	--
Potassium, total	ug/L	2100	1700	--	--
Sodium, total	ug/L	12000	8400	--	--
Lithium, dissolved	ug/L	<2.5	<2.5	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-310
 Number of Sampling Dates: 23

Parameter Name	Units	10/5/2023	4/23/2024
Boron	ug/L	130	330
Calcium	mg/L	100	99
Chloride	mg/L	12	16
Fluoride	mg/L	<0.38	<0.38
Field pH	Std. Units	7.01	7.09
Sulfate	mg/L	210	130
Total Dissolved Solids	mg/L	560	430
Antimony	ug/L	<1	<1
Arsenic	ug/L	45	24
Barium	ug/L	360	240
Beryllium	ug/L	<0.33	<0.33
Cadmium	ug/L	<0.1	<0.1
Chromium	ug/L	<1.1	<1.2
Cobalt	ug/L	2.4	1.6
Lead	ug/L	<0.24	<0.26
Lithium	ug/L	<2.5	<2.5
Mercury	ug/L	<0.14	<0.11
Molybdenum	ug/L	3.3	3
Selenium	ug/L	<1.4	<1.4
Thallium	ug/L	<0.26	<0.57
Total Radium	pCi/L	2.17	0.317
Radium-226	pCi/L	0.35	0.317
Radium-228	pCi/L	1.82	-0.154
Collected By		--	--
Field Oxidation Potential	mV	-190.6	-141.7
Field Specific Conductance	umhos/cm	951	747
Field Temperature	deg C	19.5	9.3
Groundwater Elevation	feet	520.39	523.93
Oxygen, Dissolved	mg/L	0.11	0.24
Turbidity	NTU	9.98	16.1
pH at 25 Degrees C	Std. Units	7.7	7.2
Bicarbonate Alkalinity as CaCO3	mg/L	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--
Iron, dissolved	ug/L	--	--
Manganese, dissolved	ug/L	--	--
Molybdenum, dissolved	ug/L	--	--
Total Alkalinity as CaCO3	mg/L	--	--

Iron, total	ug/L	19000	15000
Magnesium, total	ug/L	--	--
Manganese, total	ug/L	--	--
Potassium, total	ug/L	--	--
Sodium, total	ug/L	--	--
Lithium, dissolved	ug/L	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-310A

Number of Sampling Dates: 11

Parameter Name	Units	9/9/2020	10/16/2020	3/3/2021	4/20/2021
Boron	ug/L	2200	1200	--	1100
Calcium	mg/L	150	62	--	52
Chloride	mg/L	18	16	--	14
Fluoride	mg/L	0.27	<0.23	--	0.44
Field pH	Std. Units	7.33	--	7.22	7.41
Sulfate	mg/L	100	130	--	120
Total Dissolved Solids	mg/L	570	620	--	660
Antimony	ug/L	1.1	1.5	--	<1.1
Arsenic	ug/L	15	5.1	--	3.5
Barium	ug/L	290	90	--	75
Beryllium	ug/L	2.3	<0.27	--	<0.27
Cadmium	ug/L	0.69	0.062	--	<0.051
Chromium	ug/L	5.4	<1.1	--	1.5
Cobalt	ug/L	28	3.4	--	3
Lead	ug/L	20	3.5	--	2.8
Lithium	ug/L	32	36	--	40
Mercury	ug/L	<0.1	<0.1	--	<0.15
Molybdenum	ug/L	19	33	--	24
Selenium	ug/L	1.5	<1	--	<0.96
Thallium	ug/L	<0.26	--	--	<0.26
Total Radium	pCi/L	4.91	0.878	--	2.51
Radium-226	pCi/L	2.48	0.662	--	1.04
Radium-228	pCi/L	2.44	0.215	--	1.47
Field Oxidation Potential	mV	145.3	--	145.9	55
Field Specific Conductance	umhos/cm	1026	--	1051	1042
Field Temperature	deg C	14.2	--	13.2	11.7
Groundwater Elevation	feet	509.16	489.84	487.06	521.12
Oxygen, Dissolved	mg/L	4.68	--	3.1	3.69
Turbidity	NTU	714.3	--	--	0
pH at 25 Degrees C	Std. Units	7.7	7.6	--	7.6
Bicarbonate Alkalinity as CaCO3	mg/L	--	410	400	410
Carbonate Alkalinity as CaCO3	mg/L	--	<3.8	<2.3	<4.6
Iron, dissolved	ug/L	--	<50	2100	<36
Manganese, dissolved	ug/L	--	420	300	240
Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	410	400	410
Iron, total	ug/L	--	1600	1900	1000

Magnesium, total	ug/L	--	25000	25000	21000
Manganese, total	ug/L	--	470	330	250
Potassium, total	ug/L	--	6900	6600	5900
Sodium, total	ug/L	--	140000	170000	180000
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-310A
 Number of Sampling Dates: 11

Parameter Name	Units	10/14/2021	4/6/2022	10/20/2022	4/27/2023
Boron	ug/L	940	910	670	870
Calcium	mg/L	51	52	39	48
Chloride	mg/L	14	11	9.6	9.4
Fluoride	mg/L	0.75	<0.22	<0.22	0.57
Field pH	Std. Units	7.07	7.29	7.54	7.05
Sulfate	mg/L	99	89	82	100
Total Dissolved Solids	mg/L	520	540	530	530
Antimony	ug/L	<1.1	<0.69	<0.69	<1
Arsenic	ug/L	3.6	1.2	1	1.2
Barium	ug/L	64	61	46	55
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.33
Cadmium	ug/L	<0.051	<0.055	<0.055	<0.1
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	3	2.6	0.63	0.34
Lead	ug/L	3.3	0.29	0.52	<0.24
Lithium	ug/L	34	38	29	33
Mercury	ug/L	--	<0.11	<0.11	<0.14
Molybdenum	ug/L	20	14	11	11
Selenium	ug/L	<0.96	<0.96	<0.96	<1.4
Thallium	ug/L	<0.26	<0.26	<0.26	<0.26
Total Radium	pCi/L	4.2	0.842	2.04	0.818
Radium-226	pCi/L	1.44	0.706	0.592	0.607
Radium-228	pCi/L	2.76	0.136	1.45	0.212
Field Oxidation Potential	mV	153.3	-10.5	21	-21.9
Field Specific Conductance	umhos/cm	842	907	874	1010
Field Temperature	deg C	15.5	11.7	18.9	12.6
Groundwater Elevation	feet	521.83	522.58	512.84	509.69
Oxygen, Dissolved	mg/L	2.04	0.41	0.01	7.56
Turbidity	NTU	80	39	2	<0
pH at 25 Degrees C	Std. Units	6.5	7.4	7.4	7.6
Bicarbonate Alkalinity as CaCO3	mg/L	440	450	420	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	<4.6	--
Iron, dissolved	ug/L	<36	88	<36	180
Manganese, dissolved	ug/L	170	150	22	--
Molybdenum, dissolved	ug/L	21	17	14	--
Total Alkalinity as CaCO3	mg/L	440	450	420	--
Iron, total	ug/L	950	85	290	--

Magnesium, total	ug/L	20000	21000	16000	--
Manganese, total	ug/L	270	280	41	--
Potassium, total	ug/L	5200	5000	4200	--
Sodium, total	ug/L	140000	140000	120000	--
Lithium, dissolved	ug/L	32	38	34	--

Single Location

Name: IPL - Burlington

Location ID: MW-310A

Number of Sampling Dates: 11

Parameter Name	Units	8/3/2023	10/5/2023	4/25/2024
Boron	ug/L	830	790	930
Calcium	mg/L	57	48	49
Chloride	mg/L	12	11	9.3
Fluoride	mg/L	<0.38	0.39	0.38
Field pH	Std. Units	7.39	7.3	6.9
Sulfate	mg/L	110	87	74
Total Dissolved Solids	mg/L	610	570	550
Antimony	ug/L	<1	<1	<1
Arsenic	ug/L	0.91	0.82	1.7
Barium	ug/L	58	47	52
Beryllium	ug/L	<0.33	<0.33	<0.33
Cadmium	ug/L	<0.1	<0.1	<0.1
Chromium	ug/L	<1.1	<1.1	<1.2
Cobalt	ug/L	0.58	<0.17	0.67
Lead	ug/L	0.35	<0.24	0.51
Lithium	ug/L	37	38	41
Mercury	ug/L	<0.14	<0.14	<0.11
Molybdenum	ug/L	10	7.4	7.5
Selenium	ug/L	<1.4	<1.4	<1.4
Thallium	ug/L	<0.26	<0.26	<0.57
Total Radium	pCi/L	--	1.53	1.13
Radium-226	pCi/L	--	0.462	0.427
Radium-228	pCi/L	--	1.07	0.701
Field Oxidation Potential	mV	--	4.9	35.4
Field Specific Conductance	umhos/cm	1100	982	1173
Field Temperature	deg C	--	19.2	11.9
Groundwater Elevation	feet	490.83	517.75	521.84
Oxygen, Dissolved	mg/L	--	4.78	4.09
Turbidity	NTU	--	15.32	37.08
pH at 25 Degrees C	Std. Units	7.4	7.2	7.7
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--
Iron, dissolved	ug/L	--	--	--
Manganese, dissolved	ug/L	--	--	--
Molybdenum, dissolved	ug/L	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--
Iron, total	ug/L	140	49	270

Magnesium, total	ug/L	--	--	--
Manganese, total	ug/L	--	--	--
Potassium, total	ug/L	--	--	--
Sodium, total	ug/L	--	--	--
Lithium, dissolved	ug/L	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-311

Number of Sampling Dates: 24

Parameter Name	Units	4/21/2016	6/7/2016	8/16/2016	10/3/2016	1/9/2017
Boron	ug/L	1810	2070	2320	2950	2160
Calcium	mg/L	200	164	158	150	164
Chloride	mg/L	125	75.4	77.4	62.7	78.7
Fluoride	mg/L	0.38	0.27	0.28	0.35	0.32
Field pH	Std. Units	7.33	7.28	7.63	7.59	7.24
Sulfate	mg/L	283	179	170	161	179
Total Dissolved Solids	mg/L	1060	843	799	694	776
Antimony	ug/L	<0.058	0.12	<0.058	0.084	<0.058
Arsenic	ug/L	17.7	12.4	16.4	13	17.6
Barium	ug/L	292	248	232	229	244
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029
Chromium	ug/L	0.45	0.42	0.51	<0.34	0.35
Cobalt	ug/L	0.52	<0.5	<0.5	<0.5	<0.5
Lead	ug/L	0.2	<0.19	<0.19	<0.19	<0.19
Lithium	ug/L	<4.9	<4.9	<9.8	<4.9	<4.9
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055
Molybdenum	ug/L	10.4	11.7	12.5	14.7	10.9
Selenium	ug/L	0.19	<0.18	<0.18	<0.18	0.2
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Total Radium	pCi/L	0.831	1.22	1.19	0.22	1.19
Radium-226	pCi/L	0.207	0.18	0.605	0.149	0.299
Radium-228	pCi/L	0.624	1.04	0.581	0.0707	0.886
Collected By		--	0	0	--	0
Field Oxidation Potential	mV	-129.9	-69.7	-139	-151.4	-171.4
Field Specific Conductance	umhos/cm	1173	2425	2304	1833	2126
Field Temperature	deg C	11.6	11.6	13	14.3	14.3
Groundwater Elevation	feet	523.72	521.8	522.92	527.34	525.16
Oxygen, Dissolved	mg/L	0.08	1.01	0.83	0.51	0.18
Turbidity	NTU	4.41	1.05	1.74	2.08	1.16
pH at 25 Degrees C	Std. Units	7	7.2	7.1	7.2	7.5
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--

Iron, total	ug/L	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-311

Number of Sampling Dates: 24

Parameter Name	Units	4/4/2017	6/12/2017	8/16/2017	10/16/2017
Boron	ug/L	2400	2130	360	2810
Calcium	mg/L	176	158	139	145
Chloride	mg/L	83.3	81.1	45	50.9
Fluoride	mg/L	0.27	0.36	0.36	0.36
Field pH	Std. Units	7.51	7.3	7.05	8.27
Sulfate	mg/L	184	173	112	119
Total Dissolved Solids	mg/L	808	803	623	615
Antimony	ug/L	<0.026	0.03	0.057	--
Arsenic	ug/L	17.1	15.2	11.6	--
Barium	ug/L	240	248	198	--
Beryllium	ug/L	0.036	0.013	<0.012	--
Cadmium	ug/L	<0.018	<0.018	<0.018	--
Chromium	ug/L	0.18	0.14	0.32	--
Cobalt	ug/L	0.27	0.35	0.24	--
Lead	ug/L	<0.033	0.32	0.096	--
Lithium	ug/L	<2.9	<2.9	3.3	--
Mercury	ug/L	<0.046	<0.046	<0.046	--
Molybdenum	ug/L	12.4	11.2	16	--
Selenium	ug/L	0.17	0.19	0.12	--
Thallium	ug/L	<0.036	<0.036	0.14	--
Total Radium	pCi/L	1.13	0.785	1	--
Radium-226	pCi/L	0.484	0.445	0.653	--
Radium-228	pCi/L	0.641	0.34	0.349	--
Collected By		0	0	0	0
Field Oxidation Potential	mV	-157.4	-102.5	-107.1	308.3
Field Specific Conductance	umhos/cm	2059	865	1280	972
Field Temperature	deg C	12.4	12.5	13.7	14.7
Groundwater Elevation	feet	524.01	523.55	521.12	523.44
Oxygen, Dissolved	mg/L	0.22	0.21	0.03	0.25
Turbidity	NTU	3	4.12	1.15	2.19
pH at 25 Degrees C	Std. Units	7.1	7	7.2	7.4
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--

Iron, total	ug/L	--	--	--	--
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-311

Number of Sampling Dates: 24

Parameter Name	Units	5/8/2018	8/14/2018	10/10/2018	4/4/2019
Boron	ug/L	2200	2580	2820	1800
Calcium	mg/L	173	156	130	200
Chloride	mg/L	79.9	69.9	54	110
Fluoride	mg/L	0.31	0.36	0.35	0.41
Field pH	Std. Units	7.26	7.33	7.49	7.64
Sulfate	mg/L	176	144	127	230
Total Dissolved Solids	mg/L	864	777	678	980
Antimony	ug/L	<0.026	<0.15	<0.078	<0.53
Arsenic	ug/L	14	15.7	15.2	19
Barium	ug/L	256	239	214	280
Beryllium	ug/L	<0.023	<0.12	<0.089	<0.27
Cadmium	ug/L	<0.018	<0.07	<0.033	<0.077
Chromium	ug/L	0.2	0.22	0.78	<0.98
Cobalt	ug/L	0.3	0.37	0.57	0.45
Lead	ug/L	0.043	0.13	0.48	0.37
Lithium	ug/L	<4.6	<4.6	<4.6	<2.7
Mercury	ug/L	<0.09	--	<0.09	<0.1
Molybdenum	ug/L	11.6	13.9	16.3	8.5
Selenium	ug/L	0.17	0.18	0.23	<1
Thallium	ug/L	<0.036	--	<0.099	<0.27
Total Radium	pCi/L	0.987	0.969	0.819	0.815
Radium-226	pCi/L	0.183	0.502	0.245	0.198
Radium-228	pCi/L	0.804	0.467	0.574	0.617
Collected By		--	--	--	--
Field Oxidation Potential	mV	-143.3	-158	-62.2	145.8
Field Specific Conductance	umhos/cm	1282	1177	1003	1422
Field Temperature	deg C	11.5	14.8	16.35	11.41
Groundwater Elevation	feet	525.08	521.06	528.49	528.2
Oxygen, Dissolved	mg/L	1.6	0.12	0.45	0.78
Turbidity	NTU	1.48	12.3	17.8	10.8
pH at 25 Degrees C	Std. Units	7.4	7.2	7.1	7
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--

Iron, total	ug/L	--	--	--	--
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-311

Number of Sampling Dates: 24

Parameter Name	Units	10/11/2019	6/2/2020	10/14/2020	3/1/2021
Boron	ug/L	2800	2500	3500	--
Calcium	mg/L	150	190	140	--
Chloride	mg/L	65	120	61	--
Fluoride	mg/L	0.37	0.64	<0.23	--
Field pH	Std. Units	7.07	7.1	7.41	6.99
Sulfate	mg/L	130	220	110	--
Total Dissolved Solids	mg/L	590	950	640	--
Antimony	ug/L	<0.53	<0.58	<0.51	--
Arsenic	ug/L	18	19	15	--
Barium	ug/L	210	300	220	--
Beryllium	ug/L	<0.27	<0.27	<0.27	--
Cadmium	ug/L	<0.039	<0.039	<0.049	--
Chromium	ug/L	<0.98	<1.1	<1.1	--
Cobalt	ug/L	0.27	0.81	0.28	--
Lead	ug/L	<0.27	1.1	<0.11	--
Lithium	ug/L	<2.7	<2.3	<2.5	--
Mercury	ug/L	--	0.13	<0.1	--
Molybdenum	ug/L	15	11	23	--
Selenium	ug/L	<1	<1	<1	--
Thallium	ug/L	--	<0.26	--	--
Total Radium	pCi/L	0.599	0.802/0.802	0.297	--
Radium-226	pCi/L	0.354	0.324/0.324	0.104	--
Radium-228	pCi/L	0.245	0.479/0.479	0.193	--
Collected By		--	--	--	--
Field Oxidation Potential	mV	-163.4	-1.1	-194	-179.2
Field Specific Conductance	umhos/cm	1088	1464	1041	1363
Field Temperature	deg C	14.19	12.3	14.5	11.5
Groundwater Elevation	feet	--	524.05	520.59	522.89
Oxygen, Dissolved	mg/L	0.3	0.16	0.1	0.13
Turbidity	NTU	13.4	17.95	2.36	1.33
pH at 25 Degrees C	Std. Units	7.2	7	7.1	--
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	380	400
Carbonate Alkalinity as CaCO3	mg/L	--	--	<3.8	<2.3
Iron, dissolved	ug/L	--	--	16000	21000
Manganese, dissolved	ug/L	--	--	4300	5400
Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	380	400

Iron, total	ug/L	--	--	16000	21000
Magnesium, total	ug/L	--	--	30000	39000
Manganese, total	ug/L	--	--	4200	5700
Potassium, total	ug/L	--	--	2300	2200
Sodium, total	ug/L	--	--	36000	65000
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID: MW-311

Number of Sampling Dates: 24

Parameter Name	Units	4/19/2021	10/12/2021	4/4/2022	4/27/2023
Boron	ug/L	2000	1800	1600	1200
Calcium	mg/L	98	160	160	160
Chloride	mg/L	100	110	85	23
Fluoride	mg/L	<0.28	<0.28	<0.22	0.45
Field pH	Std. Units	7.16	7.17	7.22	6.83
Sulfate	mg/L	200	190	170	290
Total Dissolved Solids	mg/L	870	750	750	750
Antimony	ug/L	<1.1	<1.1	<0.69	<1
Arsenic	ug/L	55	22	19	4.7
Barium	ug/L	370	230	220	220
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.33
Cadmium	ug/L	<0.051	<0.051	<0.055	<0.1
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	1.4	0.31	0.3	3.8
Lead	ug/L	<0.21	<0.21	<0.24	<0.24
Lithium	ug/L	<2.5	<2.5	<2.5	<2.5
Mercury	ug/L	<0.15	--	<0.11	<0.14
Molybdenum	ug/L	4.1	6.9	8.9	3.4
Selenium	ug/L	<0.96	<0.96	<0.96	<1.4
Thallium	ug/L	<0.26	<0.26	<0.26	<0.26
Total Radium	pCi/L	0.52	0.189	0.593	1.26
Radium-226	pCi/L	0.224	0.256	0.328	0.214
Radium-228	pCi/L	0.297	-0.0672	0.265	1.05
Collected By		--	--	--	--
Field Oxidation Potential	mV	-158.6	-157.6	-177.6	-81.9
Field Specific Conductance	umhos/cm	1473	1431	1190	1225
Field Temperature	deg C	10.9	14.9	11.8	10.9
Groundwater Elevation	feet	523.89	522	523.78	522.07
Oxygen, Dissolved	mg/L	0.48	0.17	0.07	0.1
Turbidity	NTU	4.56	11.1	7	2.75
pH at 25 Degrees C	Std. Units	7.2	7.2	7.3	7
Bicarbonate Alkalinity as CaCO3	mg/L	390	430	410	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	<4.6	--
Iron, dissolved	ug/L	20000	15000	17000	13000
Manganese, dissolved	ug/L	5600	4800	5700	--
Molybdenum, dissolved	ug/L	--	8	8.6	--
Total Alkalinity as CaCO3	mg/L	390	430	410	--

Iron, total	ug/L	20000	15000	17000	--
Magnesium, total	ug/L	39000	31000	31000	--
Manganese, total	ug/L	5600	4800	6000	--
Potassium, total	ug/L	2300	2200	2000	--
Sodium, total	ug/L	62000	56000	57000	--
Lithium, dissolved	ug/L	--	<2.5	<2.5	--

Single Location

Name: IPL - Burlington

Location ID: MW-311

Number of Sampling Dates: 24

Parameter Name	Units	8/3/2023	10/5/2023	4/25/2024
Boron	ug/L	1700	1400	1400
Calcium	mg/L	160	130	180
Chloride	mg/L	31	21	47
Fluoride	mg/L	<0.38	<0.38	<0.38
Field pH	Std. Units	6.95	6.93	6.76
Sulfate	mg/L	240	150	250
Total Dissolved Solids	mg/L	720	560	790
Antimony	ug/L	<1	<1	<1
Arsenic	ug/L	5.3	5.5	6.3
Barium	ug/L	230	160	98
Beryllium	ug/L	<0.33	<0.33	<0.33
Cadmium	ug/L	<0.1	<0.1	<0.1
Chromium	ug/L	<1.1	<1.1	<1.2
Cobalt	ug/L	1.5	0.89	3.4
Lead	ug/L	0.4	<0.24	<0.26
Lithium	ug/L	<2.5	<2.5	2.8
Mercury	ug/L	<0.14	<0.14	<0.11
Molybdenum	ug/L	5.6	5.8	4.7
Selenium	ug/L	<1.4	<1.4	<1.4
Thallium	ug/L	<0.26	<0.26	<0.57
Total Radium	pCi/L	--	1.3	0.685
Radium-226	pCi/L	--	0.107	0.0549
Radium-228	pCi/L	--	1.2	0.63
Collected By		--	--	--
Field Oxidation Potential	mV	-130.4	-152.5	-87.6
Field Specific Conductance	umhos/cm	1163	961	1279
Field Temperature	deg C	12.3	14.1	11.3
Groundwater Elevation	feet	518.28	518.68	522.23
Oxygen, Dissolved	mg/L	0.07	0.14	0.19
Turbidity	NTU	6.88	9.47	13.18
pH at 25 Degrees C	Std. Units	7	7.7	7.1
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--
Iron, dissolved	ug/L	--	--	--
Manganese, dissolved	ug/L	--	--	--
Molybdenum, dissolved	ug/L	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--

Iron, total	ug/L	15000	11000	16000
Magnesium, total	ug/L	--	--	--
Manganese, total	ug/L	--	--	--
Potassium, total	ug/L	--	--	--
Sodium, total	ug/L	--	--	--
Lithium, dissolved	ug/L	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-312

Number of Sampling Dates:

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Parameter Name	Units	6/6/2019	10/10/2019	6/3/2020	10/15/2020	3/1/2021
Boron	ug/L	6100	6600	6700	6500	--
Calcium	mg/L	67	71	74	78	--
Chloride	mg/L	27	25	36	23	--
Fluoride	mg/L	1.1	0.25	0.57	<0.23	--
Field pH	Std. Units	6.99	7.19	7.13	7.37	7.07
Sulfate	mg/L	220	230	200	210	--
Total Dissolved Solids	mg/L	540	510	670	560	--
Antimony	ug/L	<0.53	<0.53	<0.58	<0.51	--
Arsenic	ug/L	14	15	22	19	--
Barium	ug/L	160	150	190	200	--
Beryllium	ug/L	<0.27	<0.54	<0.27	<0.27	--
Cadmium	ug/L	<0.077	0.044	0.095	0.066	--
Chromium	ug/L	<0.98	<0.98	<1.1	<1.1	--
Cobalt	ug/L	0.65	0.36	0.67	0.5	--
Lead	ug/L	0.54	<0.27	<0.27	<0.11	--
Lithium	ug/L	24	27	22	27	--
Mercury	ug/L	<0.1	--	<0.1	<0.1	--
Molybdenum	ug/L	290	280	320	290	--
Selenium	ug/L	<1	<1	<1	<1	--
Thallium	ug/L	<0.27	--	<0.26	--	--
Total Radium	pCi/L	0.875	0.438	0.543/0.543	0.627	--
Radium-226	pCi/L	0.301	0.433	0.356/0.356	0.443	--
Radium-228	pCi/L	0.574	0.00445	<0.323/0.187	0.184	--
Field Oxidation Potential	mV	-146.4	-163.8	53.3	-203.1	-192.4
Field Specific Conductance	umhos/cm	783	785	878	854	814
Field Temperature	deg C	14.4	15.6	14.7	15.1	14.1
Groundwater Elevation	feet	--	--	524.05	518.68	520.12
Oxygen, Dissolved	mg/L	0.12	8.75	0.17	0.13	0.14
Turbidity	NTU	2.86	2.56	21.16	0.02	0.89
pH at 25 Degrees C	Std. Units	7.5	7.3	7.1	7.2	--
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	240	190
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	<3.8	<4.6
Iron, dissolved	ug/L	--	--	--	11000	9800
Manganese, dissolved	ug/L	--	--	--	8200	7500
Molybdenum, dissolved	ug/L	--	--	--	300	300
Total Alkalinity as CaCO3	mg/L	--	--	--	240	190
Iron, total	ug/L	--	--	--	11000	10000
Magnesium, total	ug/L	--	--	--	12000	12000
Manganese, total	ug/L	--	--	--	7900	7900
Potassium, total	ug/L	--	--	--	11000	13000
Sodium, total	ug/L	--	--	--	73000	74000
Lithium, dissolved	ug/L	--	--	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

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Number of Sampling Dates:

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Parameter Name	Units	4/19/2021	10/14/2021	4/6/2022	4/26/2023	8/1/2023
Boron	ug/L	5800	5300	6900	--	--
Calcium	mg/L	84	70	69	--	--
Chloride	mg/L	20	24	25	--	--
Fluoride	mg/L	0.33	<0.28	<0.22	--	--
Field pH	Std. Units	7.22	7.2	7.35	6.86	6.95
Sulfate	mg/L	190	190	230	--	--
Total Dissolved Solids	mg/L	540	480	490	--	--
Antimony	ug/L	<1.1	<1.1	<0.69	--	--
Arsenic	ug/L	18	17	12	--	--
Barium	ug/L	200	170	130	--	--
Beryllium	ug/L	<0.27	<0.27	<0.27	--	--
Cadmium	ug/L	0.053	0.086	0.09	--	--
Chromium	ug/L	<1.1	<1.1	<1.1	--	--
Cobalt	ug/L	0.54	0.42	0.28	--	--
Lead	ug/L	<0.21	<0.21	<0.24	--	--
Lithium	ug/L	30	24	28	11	18
Mercury	ug/L	<0.15	--	<0.11	--	--
Molybdenum	ug/L	310	240	210	28	37
Selenium	ug/L	<0.96	<0.96	<0.96	--	--
Thallium	ug/L	<0.26	<0.26	<0.26	--	--
Total Radium	pCi/L	0.218	0.071	0.443	--	--
Radium-226	pCi/L	0.218	0.123	0.296	--	--
Radium-228	pCi/L	-0.00944	-0.0521	0.147	--	--
Field Oxidation Potential	mV	-162.9	-143.4	-155.7	-30.3	-108.6
Field Specific Conductance	umhos/cm	875	688	746	853	1030
Field Temperature	deg C	13.7	15.7	14	6.9	10.8
Groundwater Elevation	feet	522.2	518.78	522.51	524.68	517.93
Oxygen, Dissolved	mg/L	0.12	0.2	0.06	1.27	1.81
Turbidity	NTU	8.82	13.1	23	9.97	36.5
pH at 25 Degrees C	Std. Units	7.4	7.2	7.4	--	--
Bicarbonate Alkalinity as CaCO3	mg/L	190	210	150	--	--
Carbonate Alkalinity as CaCO3	mg/L	<4.2	<4.6	<4.6	--	--
Iron, dissolved	ug/L	11000	8500	5200	3900	--
Manganese, dissolved	ug/L	7800	5900	7800	--	--
Molybdenum, dissolved	ug/L	300	250	210	--	--
Total Alkalinity as CaCO3	mg/L	190	210	150	--	--
Iron, total	ug/L	11000	8500	5700	--	24000
Magnesium, total	ug/L	13000	9700	7700	--	--
Manganese, total	ug/L	8900	5900	8000	--	--
Potassium, total	ug/L	11000	11000	13000	--	--
Sodium, total	ug/L	76000	68000	67000	--	--
Lithium, dissolved	ug/L	--	23	28	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-312

Number of Sampling Dates:

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Parameter Name	Units	10/3/2023	4/23/2024
Boron	ug/L	--	--
Calcium	mg/L	--	--
Chloride	mg/L	--	--
Fluoride	mg/L	--	--
Field pH	Std. Units	6.83	6.9
Sulfate	mg/L	--	--
Total Dissolved Solids	mg/L	--	--
Antimony	ug/L	--	--
Arsenic	ug/L	--	--
Barium	ug/L	--	--
Beryllium	ug/L	--	--
Cadmium	ug/L	--	--
Chromium	ug/L	--	--
Cobalt	ug/L	--	--
Lead	ug/L	--	--
Lithium	ug/L	18	19
Mercury	ug/L	--	--
Molybdenum	ug/L	37	31
Selenium	ug/L	--	--
Thallium	ug/L	--	--
Total Radium	pCi/L	--	--
Radium-226	pCi/L	--	--
Radium-228	pCi/L	--	--
Field Oxidation Potential	mV	-161.4	-100
Field Specific Conductance	umhos/cm	884	778
Field Temperature	deg C	11.3	10.8
Groundwater Elevation	feet	518.03	520.93
Oxygen, Dissolved	mg/L	0.13	0.25
Turbidity	NTU	5.26	13.65
pH at 25 Degrees C	Std. Units	--	--
Bicarbonate Alkalinity as CaCO3	mg/L	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--
Iron, dissolved	ug/L	--	--
Manganese, dissolved	ug/L	--	--
Molybdenum, dissolved	ug/L	--	--
Total Alkalinity as CaCO3	mg/L	--	--
Iron, total	ug/L	20000	16000
Magnesium, total	ug/L	--	--
Manganese, total	ug/L	--	--
Potassium, total	ug/L	--	--
Sodium, total	ug/L	--	--
Lithium, dissolved	ug/L	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-313A

Number of Sampling Dates:

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Parameter Name	Units	9/9/2020	10/15/2020	3/1/2021	4/19/2021	10/13/2021
Boron	ug/L	4300	4200	--	4100	3500
Calcium	mg/L	48	44	--	42	30
Chloride	mg/L	210	200	--	140	100
Fluoride	mg/L	<0.23	<0.23	--	0.46	0.38
Field pH	Std. Units	7.6	7.64	7.48	7.58	7.53
Sulfate	mg/L	200	190	--	150	140
Total Dissolved Solids	mg/L	730	660	--	580	440
Antimony	ug/L	<0.51	<0.51	--	<1.1	<1.1
Arsenic	ug/L	<0.88	<0.88	--	<0.75	<0.75
Barium	ug/L	270	270	--	240	150
Beryllium	ug/L	<0.27	<0.27	--	<0.27	<0.27
Cadmium	ug/L	<0.049	<0.049	--	<0.051	<0.051
Chromium	ug/L	<1.1	<1.1	--	<1.1	<1.1
Cobalt	ug/L	<0.091	<0.091	--	<0.091	<0.19
Lead	ug/L	<0.11	<0.11	--	<0.21	<0.21
Lithium	ug/L	13	13	15	14	11
Mercury	ug/L	<0.1	<0.1	--	<0.15	--
Molybdenum	ug/L	120	120	110	100	100
Selenium	ug/L	<1	<1	--	<0.96	<0.96
Thallium	ug/L	<0.26	--	--	<0.26	<0.26
Total Radium	pCi/L	1.5	0.914	--	1.09	1.76
Radium-226	pCi/L	0.513	0.431	--	0.428	0.496
Radium-228	pCi/L	0.984	0.483	--	0.659	1.26
Field Oxidation Potential	mV	-164.4	-190.1	-195.9	-172.1	-117.7
Field Specific Conductance	umhos/cm	1243	1133	927	1023	757
Field Temperature	deg C	15.3	14.8	14.1	14.2	15.4
Groundwater Elevation	feet	515.36	518.61	520.02	522.11	518.62
Oxygen, Dissolved	mg/L	0.21	0.1	0.12	0.09	0.11
Turbidity	NTU	0	0.02	0.78	1.71	7.7
pH at 25 Degrees C	Std. Units	7.7	7.5	--	7.7	7.7
Bicarbonate Alkalinity as CaCO3	mg/L	--	88	94	97	130
Carbonate Alkalinity as CaCO3	mg/L	--	<1.9	<2.3	<4.3	<4.6
Iron, dissolved	ug/L	--	1700	1400	1400	920
Manganese, dissolved	ug/L	--	680	530	600	420
Molybdenum, dissolved	ug/L	--	120	100	100	110
Total Alkalinity as CaCO3	mg/L	--	88	94	97	130
Iron, total	ug/L	--	1600	1400	1500	960
Magnesium, total	ug/L	--	4300	3400	3900	2400
Manganese, total	ug/L	--	670	530	600	420
Potassium, total	ug/L	--	12000	11000	11000	7600
Sodium, total	ug/L	--	160000	150000	150000	130000
Lithium, dissolved	ug/L	--	--	15	14	10

Single Location

Name: IPL - Burlington

Location ID:

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Number of Sampling Dates:

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Parameter Name	Units	4/6/2022	10/20/2022	4/25/2023	8/2/2023	10/4/2023
Boron	ug/L	4400	2700	--	--	--
Calcium	mg/L	28	18	--	--	--
Chloride	mg/L	69	57	--	--	--
Fluoride	mg/L	0.24	<0.22	--	--	--
Field pH	Std. Units	7.62	7.72	7.59	7.69	7.49
Sulfate	mg/L	110	52	--	--	--
Total Dissolved Solids	mg/L	430	310	--	--	--
Antimony	ug/L	<0.69	<0.69	--	--	--
Arsenic	ug/L	<0.75	<0.75	--	--	--
Barium	ug/L	170	110	--	--	--
Beryllium	ug/L	<0.27	<0.27	--	--	--
Cadmium	ug/L	<0.055	<0.055	--	--	--
Chromium	ug/L	<1.1	<1.1	--	--	--
Cobalt	ug/L	<0.19	<0.19	--	--	--
Lead	ug/L	<0.24	<0.24	--	--	--
Lithium	ug/L	12	7	<2.5	4.1	4.8
Mercury	ug/L	<0.11	<0.11	--	--	--
Molybdenum	ug/L	100	64	2.8	4.6	3.5
Selenium	ug/L	<0.96	<0.96	--	--	--
Thallium	ug/L	<0.26	<0.26	--	--	--
Total Radium	pCi/L	0.828	0.586	--	--	--
Radium-226	pCi/L	0.333	0.206	--	--	--
Radium-228	pCi/L	0.494	0.38	--	--	--
Field Oxidation Potential	mV	-158	-105	-108.6	-174	-176.3
Field Specific Conductance	umhos/cm	695	621	437.3	457	433.6
Field Temperature	deg C	14	17.06	5.5	7.3	8.9
Groundwater Elevation	feet	522.38	511.86	524.29	518	518.05
Oxygen, Dissolved	mg/L	0.07	0	0.16	0.27	0.69
Turbidity	NTU	23	10	0.02	0.81	3.23
pH at 25 Degrees C	Std. Units	7.7	7.9	--	--	--
Bicarbonate Alkalinity as CaCO3	mg/L	120	170	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	--	--	--
Iron, dissolved	ug/L	850	610	2000	--	--
Manganese, dissolved	ug/L	350	250	--	--	--
Molybdenum, dissolved	ug/L	97	63	--	--	--
Total Alkalinity as CaCO3	mg/L	120	170	--	--	--
Iron, total	ug/L	2000	910	--	2300	2000
Magnesium, total	ug/L	2100	1400	--	--	--
Manganese, total	ug/L	370	290	--	--	--
Potassium, total	ug/L	7100	7200	--	--	--
Sodium, total	ug/L	120000	96000	--	--	--
Lithium, dissolved	ug/L	11	7.3	--	--	--

Single Location

Name: IPL - Burlington

Location ID:

MW-313A

Number of Sampling Dates:

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Parameter Name	Units	4/25/2024
Boron	ug/L	--
Calcium	mg/L	--
Chloride	mg/L	--
Fluoride	mg/L	--
Field pH	Std. Units	7.43
Sulfate	mg/L	--
Total Dissolved Solids	mg/L	--
Antimony	ug/L	--
Arsenic	ug/L	--
Barium	ug/L	--
Beryllium	ug/L	--
Cadmium	ug/L	--
Chromium	ug/L	--
Cobalt	ug/L	--
Lead	ug/L	--
Lithium	ug/L	5.6
Mercury	ug/L	--
Molybdenum	ug/L	5.2
Selenium	ug/L	--
Thallium	ug/L	--
Total Radium	pCi/L	--
Radium-226	pCi/L	--
Radium-228	pCi/L	--
Field Oxidation Potential	mV	-119.3
Field Specific Conductance	umhos/cm	438.1
Field Temperature	deg C	8
Groundwater Elevation	feet	520.87
Oxygen, Dissolved	mg/L	0.27
Turbidity	NTU	10.93
pH at 25 Degrees C	Std. Units	--
Bicarbonate Alkalinity as CaCO3	mg/L	--
Carbonate Alkalinity as CaCO3	mg/L	--
Iron, dissolved	ug/L	--
Manganese, dissolved	ug/L	--
Molybdenum, dissolved	ug/L	--
Total Alkalinity as CaCO3	mg/L	--
Iron, total	ug/L	1900
Magnesium, total	ug/L	--
Manganese, total	ug/L	--
Potassium, total	ug/L	--
Sodium, total	ug/L	--
Lithium, dissolved	ug/L	--

Single Location

Name: IPL - Burlington

Location ID:

MW-313B

Number of Sampling Dates:

9

Parameter Name	Units	7/1/2021	10/13/2021	2/22/2022	4/6/2022	10/20/2022
Boron	ug/L	4300	4200	5500	5800	4400
Calcium	mg/L	70	44	51	55	50
Chloride	mg/L	160	89	56	52	85
Fluoride	mg/L	0.44	<0.28	<0.22	<0.22	<0.22
Field pH	Std. Units	7.62	7.54	7.64	7.5	7.51
Sulfate	mg/L	170	140	120	120	150
Total Dissolved Solids	mg/L	620	420	360	390	490
Antimony	ug/L	<1.1	<1.1	<0.69	<0.69	<0.69
Arsenic	ug/L	<0.75	<0.75	<0.75	<0.75	<0.75
Barium	ug/L	210	170	190	210	260
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27	<0.27
Cadmium	ug/L	0.06	0.09	<0.055	<0.055	<0.055
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	0.25	<0.19	<0.19	<0.19	<0.19
Lead	ug/L	<0.21	<0.21	<0.24	<0.24	0.3
Lithium	ug/L	18	13	13	13	14
Mercury	ug/L	<0.15	--	<0.11	<0.11	<0.11
Molybdenum	ug/L	100	100	89	100	110
Selenium	ug/L	<0.96	<0.96	<0.96	<0.96	<0.96
Thallium	ug/L	<0.26	<0.26	<0.26	<0.26	<0.26
Total Radium	pCi/L	1	0.457	0.912	1.01	1.45
Radium-226	pCi/L	0.447	0.356	0.24	0.281	0.349
Radium-228	pCi/L	0.557	0.101	0.672	0.73	1.1
Field Oxidation Potential	mV	-5.1	-90.8	210	-144.4	-105
Field Specific Conductance	umhos/cm	1052	714	665	622.6	804
Field Temperature	deg C	15.2	15.4	13.7	14.1	17.99
Groundwater Elevation	feet	519.51	518.72	518.88	522.45	511.91
Oxygen, Dissolved	mg/L	0.37	0.09	0.17	0.01	0
Turbidity	NTU	0	8.6	2.4	9	4
pH at 25 Degrees C	Std. Units	6.4	7.7	7.6	7.6	7.7
Bicarbonate Alkalinity as CaCO3	mg/L	100	140	140	140	160
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	<4.6	<4.6	<4.6
Iron, dissolved	ug/L	880	700	1000	1000	750
Manganese, dissolved	ug/L	570	390	460	480	350
Molybdenum, dissolved	ug/L	100	110	91	97	100
Total Alkalinity as CaCO3	mg/L	100	140	140	140	160
Iron, total	ug/L	990	730	1100	1100	1300
Magnesium, total	ug/L	9500	5800	7200	7800	4800
Manganese, total	ug/L	590	410	430	510	410
Potassium, total	ug/L	9500	6800	5500	5800	9100
Sodium, total	ug/L	130000	110000	69000	67000	100000
Lithium, dissolved	ug/L	18	13	12	13	14

Single Location

Name: IPL - Burlington

Location ID: MW-313B

Number of Sampling Dates: 9

Parameter Name	Units	4/25/2023	8/2/2023	10/4/2023	4/25/2024
Boron	ug/L	--	--	--	--
Calcium	mg/L	--	--	--	--
Chloride	mg/L	--	--	--	--
Fluoride	mg/L	--	--	--	--
Field pH	Std. Units	7.41	7.47	7.13	7.3
Sulfate	mg/L	--	--	--	--
Total Dissolved Solids	mg/L	--	--	--	--
Antimony	ug/L	--	--	--	--
Arsenic	ug/L	--	--	--	--
Barium	ug/L	--	--	--	--
Beryllium	ug/L	--	--	--	--
Cadmium	ug/L	--	--	--	--
Chromium	ug/L	--	--	--	--
Cobalt	ug/L	--	--	--	--
Lead	ug/L	--	--	--	--
Lithium	ug/L	4.9	5.1	5.9	6.6
Mercury	ug/L	--	--	--	--
Molybdenum	ug/L	14	9.3	11	13
Selenium	ug/L	--	--	--	--
Thallium	ug/L	--	--	--	--
Total Radium	pCi/L	--	--	--	--
Radium-226	pCi/L	--	--	--	--
Radium-228	pCi/L	--	--	--	--
Field Oxidation Potential	mV	-66	-145.8	-135.6	-94.7
Field Specific Conductance	umhos/cm	571.9	512	546.2	483.1
Field Temperature	deg C	9.7	8.4	8.8	8.6
Groundwater Elevation	feet	524.39	518.01	518.12	520.92
Oxygen, Dissolved	mg/L	1.33	1.06	0.29	0.29
Turbidity	NTU	13.7	1.76	6.2	11.59
pH at 25 Degrees C	Std. Units	--	--	--	--
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, dissolved	ug/L	3400	--	--	--
Manganese, dissolved	ug/L	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--
Iron, total	ug/L	--	2800	2600	2100
Magnesium, total	ug/L	--	--	--	--
Manganese, total	ug/L	--	--	--	--
Potassium, total	ug/L	--	--	--	--
Sodium, total	ug/L	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--

Single Location

Name: IPL - Burlington


Location ID:

MW-314

Number of Sampling Dates:

5

Parameter Name	Units	4/6/2022	10/20/2022	8/3/2023	10/5/2023	4/25/2024
Boron	ug/L	360	160	240	160	130
Calcium	mg/L	150	140	150	180	160
Chloride	mg/L	13	14	16	18	12
Fluoride	mg/L	<0.22	<0.22	<0.38	<0.38	<0.38
Field pH	Std. Units	6.79	7.11	6.68	6.69	6.64
Sulfate	mg/L	130	85	110	130	93
Total Dissolved Solids	mg/L	630	560	640	720	650
Antimony	ug/L	<0.69	<0.69	<1	<1	<1
Arsenic	ug/L	4.1	2.1	3.7	4.3	3.9
Barium	ug/L	330	290	320	330	290
Beryllium	ug/L	<0.27	<0.27	<0.33	<0.33	<0.33
Cadmium	ug/L	<0.055	<0.055	<0.1	<0.1	<0.1
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1	<1.2
Cobalt	ug/L	0.48	0.27	0.86	0.37	0.59
Lead	ug/L	<0.24	<0.24	1.3	<0.24	<0.26
Lithium	ug/L	3.9	3.1	5.8	4.6	4.4
Mercury	ug/L	<0.11	<0.11	<0.14	<0.14	<0.11
Molybdenum	ug/L	1.2	<1.2	2.1	<0.91	1.7
Selenium	ug/L	<0.96	<0.96	1.9	<1.4	<1.4
Thallium	ug/L	<0.26	<0.26	<0.26	<0.26	<0.57
Total Radium	pCi/L	1.3	1.14	--	1.77	0.923
Radium-226	pCi/L	0.506	0.458	--	0.633	0.312
Radium-228	pCi/L	0.795	0.685	--	1.13	0.611
Field Oxidation Potential	mV	-82	-120	-111	-130.7	-72.1
Field Specific Conductance	umhos/cm	1001	930	1149	1313	1148
Field Temperature	deg C	11.4	13.3	12.3	13.2	11.7
Groundwater Elevation	feet	522.27	517.78	518.28	518.02	520.95
Oxygen, Dissolved	mg/L	0.13	0	0.3	0.35	0.38
Turbidity	NTU	35	5	38.36	18.75	12.56
pH at 25 Degrees C	Std. Units	7.1	7.1	6.8	7.8	6.9
Bicarbonate Alkalinity as CaCO3	mg/L	460	450	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	--	--	--
Iron, dissolved	ug/L	12000	12000	--	--	--
Manganese, dissolved	ug/L	7700	5000	--	--	--
Molybdenum, dissolved	ug/L	1.6	1.4	--	--	--
Total Alkalinity as CaCO3	mg/L	460	450	--	--	--
Iron, total	ug/L	13000	11000	34000	26000	15000
Magnesium, total	ug/L	47000	40000	--	--	--
Manganese, total	ug/L	7800	5500	--	--	--
Potassium, total	ug/L	550	440	--	--	--
Sodium, total	ug/L	11000	11000	--	--	--
Lithium, dissolved	ug/L	4.8	3.6	--	--	--



Appendix E

Statistical Evaluation

E1 October 2023 Statistical Evaluation

Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 2/13/2024, 4:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (ug/L)	MW-301	72.9	7.774	79.8	No	8	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-302	100	3.1	79.8	No	8	0	None	No	0.004	NP (normality)
Arsenic (ug/L)	MW-303	17.16	7.01	79.8	No	8	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-304	48.16	12.84	79.8	No	8	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-305	2.7	0.53	79.8	No	8	62.5	None	No	0.004	NP (NDs)
Arsenic (ug/L)	MW-306	51.09	34.41	79.8	No	8	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-307	52	8.2	79.8	No	8	0	None	No	0.004	NP (normality)
Arsenic (ug/L)	MW-308	76	1.9	79.8	No	8	0	None	No	0.004	NP (normality)
Arsenic (ug/L)	MW-309	89	21	79.8	No	8	0	None	No	0.004	NP (normality)
Arsenic (ug/L)	MW-310 (bg)	63.62	40.88	79.8	No	8	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-311 (bg)	22	4.7	79.8	No	8	0	None	No	0.004	NP (normality)
Cobalt (ug/L)	MW-301	12	0.31	6	No	8	0	None	No	0.004	NP (normality)
Cobalt (ug/L)	MW-302	78	0.21	6	No	8	0	None	No	0.004	NP (normality)
Cobalt (ug/L)	MW-303	1.7	0.35	6	No	8	0	None	No	0.004	NP (normality)
Cobalt (ug/L)	MW-304	81	0.091	6	No	8	50	None	No	0.004	NP (normality)
Cobalt (ug/L)	MW-305	290	0.14	6	No	8	0	None	No	0.004	NP (normality)
Cobalt (ug/L)	MW-306	0.42	0.091	6	No	8	75	None	No	0.004	NP (NDs)
Cobalt (ug/L)	MW-307	0.92	0.091	6	No	8	62.5	None	No	0.004	NP (NDs)
Cobalt (ug/L)	MW-308	4.5	0.091	6	No	8	62.5	None	No	0.004	NP (NDs)
Cobalt (ug/L)	MW-309	0.9305	0.3078	6	No	8	0	None	ln(x)	0.01	Param.
Cobalt (ug/L)	MW-310 (bg)	3.192	0.8053	6	No	8	0	None	No	0.01	Param.
Cobalt (ug/L)	MW-311 (bg)	2.123	0.293	6	No	8	0	None	ln(x)	0.01	Param.
Lithium (ug/L)	MW-301	14.3	7.696	40	No	8	12.5	None	No	0.01	Param.
Lithium (ug/L)	MW-302	72.36	48.14	40	Yes	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-303	71.24	27.51	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-304	500	47	40	Yes	8	0	None	No	0.004	NP (normality)
Lithium (ug/L)	MW-305	37	18	40	No	8	0	None	No	0.004	NP (normality)
Lithium (ug/L)	MW-306	46.17	36.08	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-307	100	48	40	Yes	8	0	None	No	0.004	NP (normality)
Lithium (ug/L)	MW-308	220	48	40	Yes	8	0	None	No	0.004	NP (normality)
Lithium (ug/L)	MW-309	15	2.4	40	No	8	12.5	None	No	0.004	NP (normality)
Lithium (ug/L)	MW-310 (bg)	2.5	2.3	40	No	8	100	None	No	0.004	NP (NDs)
Lithium (ug/L)	MW-311 (bg)	2.5	2.3	40	No	8	100	None	No	0.004	NP (NDs)
Molybdenum (ug/L)	MW-301	87.08	35.92	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-302	157.7	53.27	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-303	164.8	78.67	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-304	155.6	56.68	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-305	2	1.1	100	No	8	50	None	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-306	87	12	100	No	8	0	None	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-307	284.9	96.14	100	No	8	0	None	ln(x)	0.01	Param.
Molybdenum (ug/L)	MW-308	295.2	82.54	100	No	8	0	None	ln(x)	0.01	Param.
Molybdenum (ug/L)	MW-309	90.6	41.4	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-310 (bg)	5.777	2.573	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-311 (bg)	13.63	3.778	100	No	8	0	None	ln(x)	0.01	Param.
Thallium (ug/L)	MW-301	1.5	0.26	2	No	8	75	None	No	0.004	NP (NDs)
Thallium (ug/L)	MW-302	1.8	0.26	2	No	8	75	None	No	0.004	NP (NDs)
Thallium (ug/L)	MW-303	0.27	0.26	2	No	8	100	None	No	0.004	NP (NDs)
Thallium (ug/L)	MW-304	1.2	0.26	2	No	8	87.5	None	No	0.004	NP (NDs)
Thallium (ug/L)	MW-305	0.27	0.26	2	No	8	100	None	No	0.004	NP (NDs)
Thallium (ug/L)	MW-306	0.27	0.26	2	No	8	100	None	No	0.004	NP (NDs)

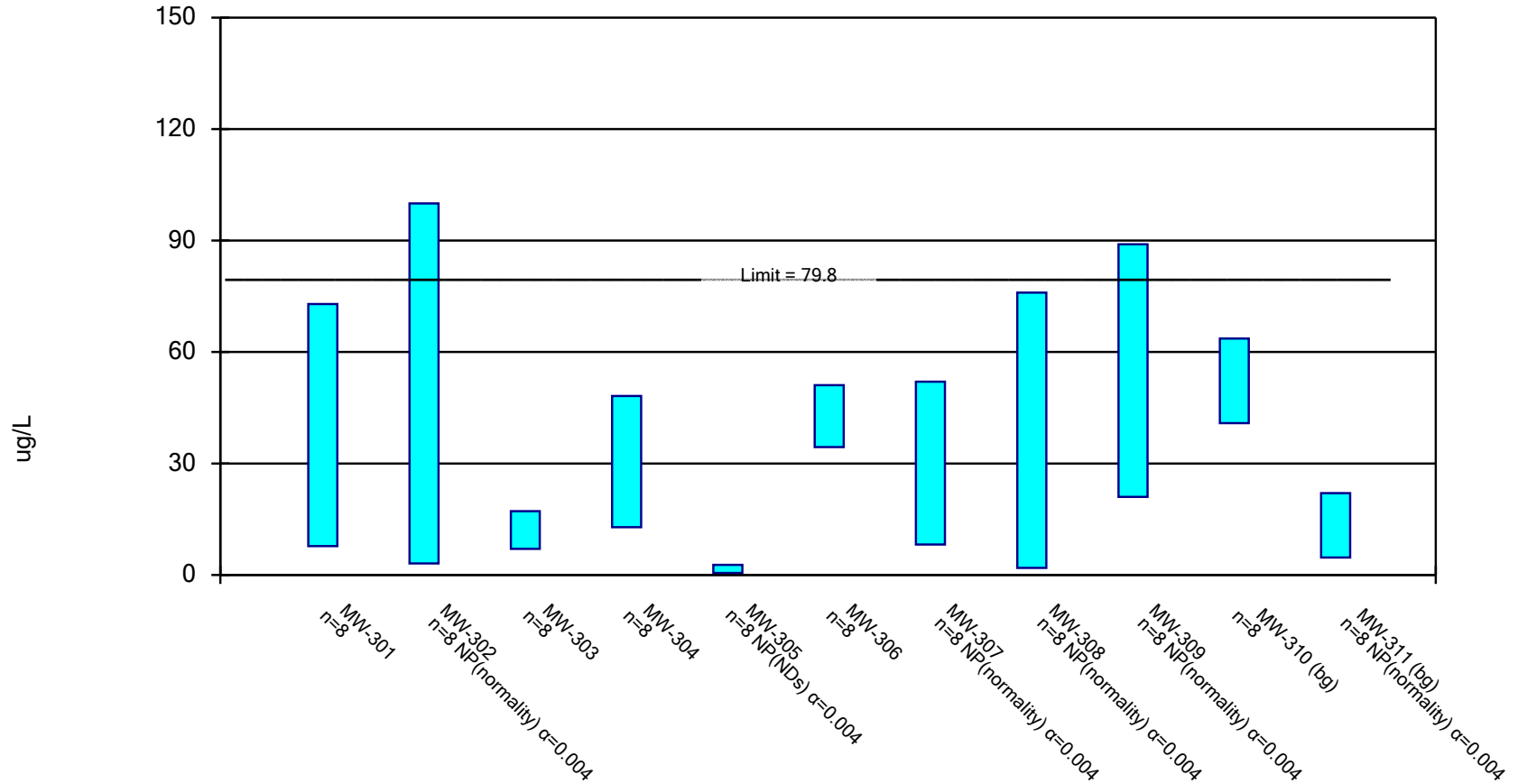
Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 2/13/2024, 4:29 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Thallium (ug/L)	MW-307	0.27	0.26	2	No	8	100	None	No	0.004	NP (NDs)
Thallium (ug/L)	MW-308	0.27	0.26	2	No	8	100	None	No	0.004	NP (NDs)
Thallium (ug/L)	MW-309	1	0.26	2	No	8	100	None	No	0.004	NP (NDs)
Thallium (ug/L)	MW-310 (bg)	0.27	0.26	2	No	8	100	None	No	0.004	NP (NDs)
Thallium (ug/L)	MW-311 (bg)	0.27	0.26	2	No	8	100	None	No	0.004	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 2/13/2024 4:28 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Arsenic (ug/L) Analysis Run 2/13/2024 4:29 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
10/11/2019									
6/2/2020									
6/3/2020	46		18	35	<0.88 (U)				34
6/4/2020						50	47	76	
10/14/2020								69	33
10/15/2020				49	<0.88 (U)	46	47		
10/16/2020	54	76	14						
4/19/2021	61	75	15	41		53			30
4/20/2021					<0.75 (U)		52	73	
10/11/2021						43	34		
10/12/2021		100						59	24
10/13/2021	66		14	32					
10/14/2021					<0.75 (U)				
2/22/2022		94							
4/4/2022								62	21
4/5/2022		86	5.7	44		48	41		
4/6/2022	80				0.92 (J)				
4/24/2023							8.8	1.9 (J)	
4/26/2023	2.1 (J)	3.1	4	1.4 (J)	<0.53 (U)				
4/27/2023						36			21
8/1/2023		15	12	9.6	2		8.2	5.7	
8/2/2023						32			22
8/3/2023	9.8								
10/3/2023	3.8	3.8	14	32	2.7			5.6	
10/4/2023						34	10		89
10/5/2023									
Mean	40.34	56.61	12.09	30.5	1.176	42.75	31	44.03	34.25
Std. Dev.	30.72	41.82	4.79	16.66	0.7581	7.869	18.96	33.28	22.75
Upper Lim.	72.9	100	17.16	48.16	2.7	51.09	52	76	89
Lower Lim.	7.774	3.1	7.01	12.84	0.53	34.41	8.2	1.9	21

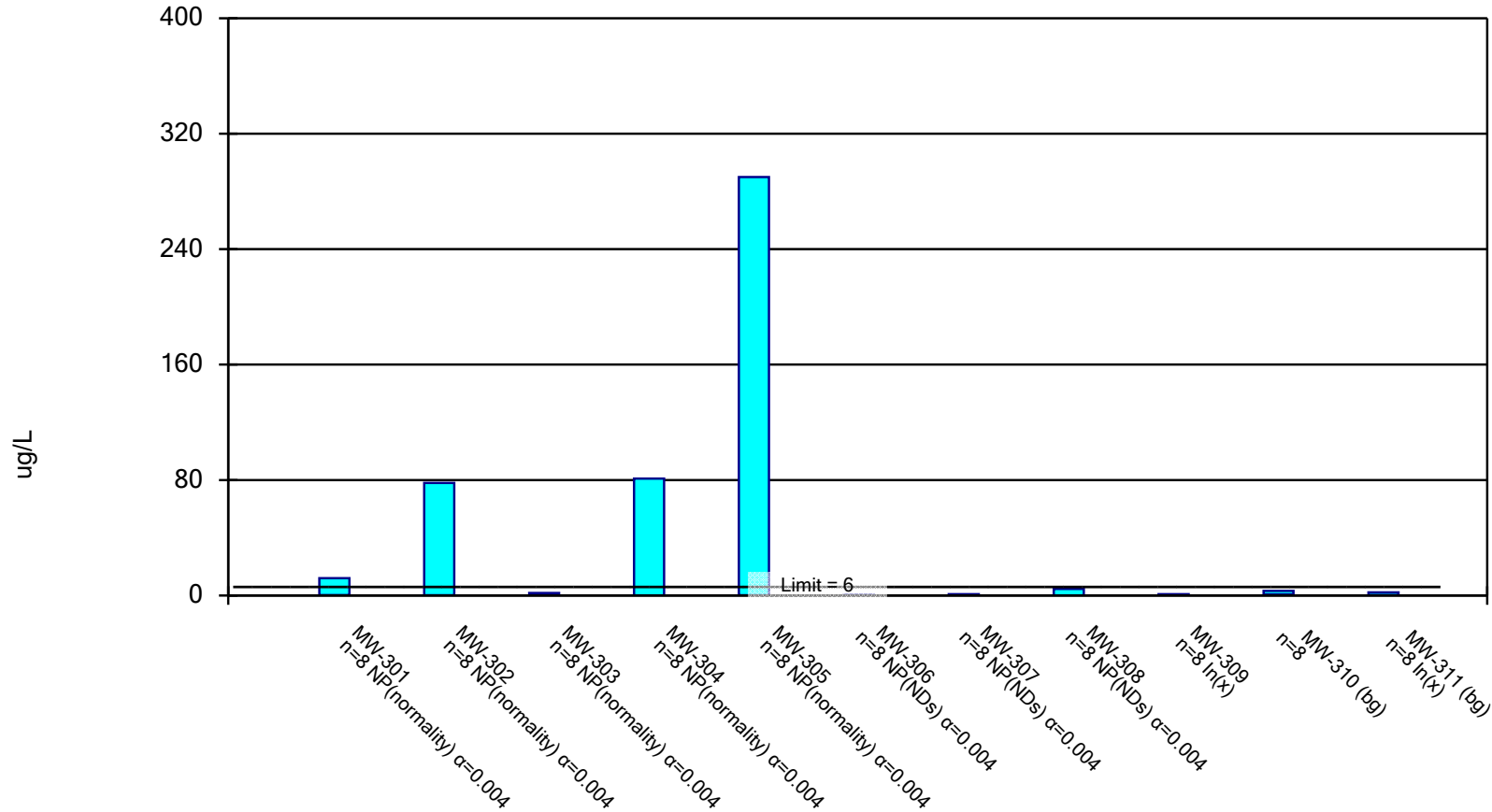
Confidence Interval

Constituent: Arsenic (ug/L) Analysis Run 2/13/2024 4:29 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
10/11/2019	61	18
6/2/2020	55	19
6/3/2020		
6/4/2020		
10/14/2020	63	15
10/15/2020		
10/16/2020		
4/19/2021	16 (X)	55 (X)
4/20/2021		
10/11/2021		
10/12/2021	63	22
10/13/2021		
10/14/2021		
2/22/2022		
4/4/2022	52	19
4/5/2022		
4/6/2022		
4/24/2023		
4/26/2023		
4/27/2023	32	4.7
8/1/2023		
8/2/2023		
8/3/2023	47	5.3
10/3/2023		
10/4/2023		
10/5/2023	45	5.5
Mean	52.25	13.56
Std. Dev.	10.73	7.21
Upper Lim.	63.62	22
Lower Lim.	40.88	4.7

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 2/13/2024 4:28 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Cobalt (ug/L) Analysis Run 2/13/2024 4:29 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
6/2/2020									
6/3/2020	0.31 (J)	0.21 (J)	0.56	0.15 (J)	0.18 (J)				0.57
6/4/2020						<0.091 (U)	<0.091 (U)	<0.091 (U)	
10/14/2020								<0.091 (U)	0.33 (J)
10/15/2020				<0.36	0.15 (J)	<0.091 (U)	<0.091 (U)		
10/16/2020	0.7	0.26 (J)	0.49 (J)						
4/19/2021	0.81	0.21 (J)	0.42 (J)	<0.091 (U)		<0.091 (U)			0.39 (J)
4/20/2021					0.14 (J)		<0.091 (U)	<0.091 (U)	
10/11/2021						<0.19 (U)	<0.19 (U)		
10/12/2021		0.27 (J)						<0.19 (U)	0.29 (J)
10/13/2021	0.74		0.42 (J)	<0.19 (U)					
10/14/2021					0.21 (J)				
4/4/2022								<0.19 (U)	0.42 (J)
4/5/2022		0.21 (J)	0.35 (J)	<0.19 (U)		<0.19 (U)	<0.19 (U)		
4/6/2022	0.7				0.22 (J)				
4/24/2023							0.31 (J)	0.18 (J)	
4/26/2023	4.8	78	1.3	1.3	290				
4/27/2023						0.42 (J)			1.3
8/1/2023		41	1.4	81	9.2		0.92	4.1	
8/2/2023						0.31 (J)			0.61
8/3/2023	8.8								
10/3/2023	12	7.6	1.7	44	11			4.5	
10/4/2023						<0.17 (U)	0.41 (J)		0.95 (J)
10/5/2023									
Mean	3.608	15.97	0.83	15.91	38.89	0.1941	0.2866	1.179	0.6075
Std. Dev.	4.514	28.74	0.5422	30.41	101.6	0.1177	0.2804	1.93	0.3502
Upper Lim.	12	78	1.7	81	290	0.42	0.92	4.5	0.9305
Lower Lim.	0.31	0.21	0.35	0.091	0.14	0.091	0.091	0.091	0.3078

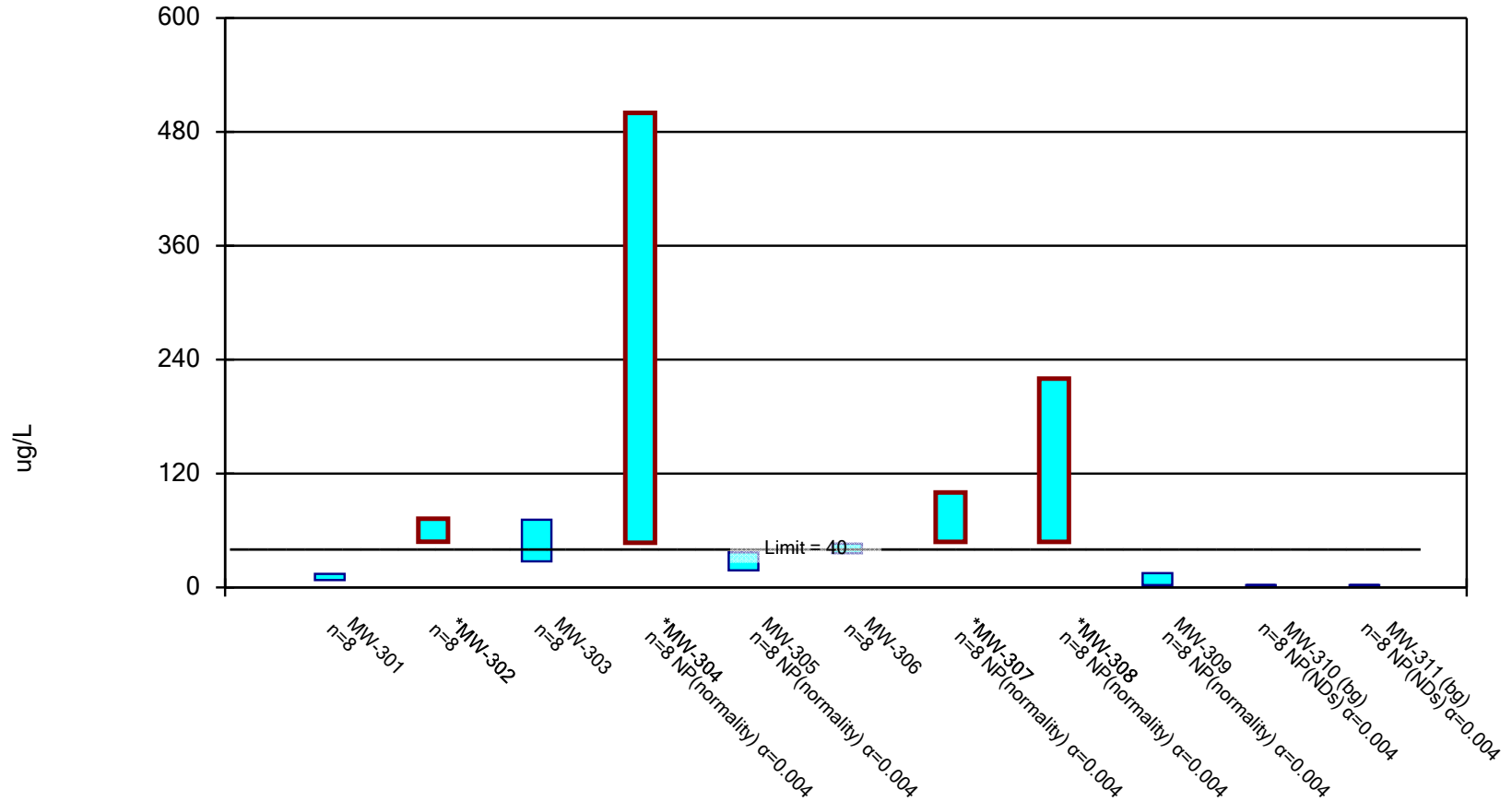
Confidence Interval

Constituent: Cobalt (ug/L) Analysis Run 2/13/2024 4:29 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
6/2/2020	2.3	0.81
6/3/2020		
6/4/2020		
10/14/2020	1.5	0.28 (J)
10/15/2020		
10/16/2020		
4/19/2021	0.29 (J)	1.4
4/20/2021		
10/11/2021		
10/12/2021	1.4	0.31 (J)
10/13/2021		
10/14/2021		
4/4/2022	1.2	0.3 (J)
4/5/2022		
4/6/2022		
4/24/2023		
4/26/2023		
4/27/2023	3.1	3.8
8/1/2023		
8/2/2023		
8/3/2023	3.8	1.5
10/3/2023		
10/4/2023		
10/5/2023	2.4	0.89
Mean	1.999	1.161
Std. Dev.	1.126	1.17
Upper Lim.	3.192	2.123
Lower Lim.	0.8053	0.293

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 2/13/2024 4:28 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Lithium (ug/L) Analysis Run 2/13/2024 4:29 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
6/2/2020									
6/3/2020	16	55	48	47	28				2.4 (J)
6/4/2020						43	48	48	
10/14/2020								51	<2.5 (U)
10/15/2020				92	34	42	51		
10/16/2020	10	64	59						
4/19/2021	10	64	66	75		43			3.8 (J)
4/20/2021					36		53	54	
10/11/2021						41	52		
10/12/2021		64						58	2.8 (J)
10/13/2021	11		61	60					
10/14/2021					32				
4/4/2022								57	2.9 (J)
4/5/2022		78	80	74		42	50		
4/6/2022	12				36				
4/24/2023							72	73	
4/26/2023	<10 (U)	66	23	63	37				
4/27/2023						34			4.9 (J)
8/1/2023		51	27	160	18		100	180	
8/2/2023						49			3.5 (J)
8/3/2023	11								
10/3/2023	13	40	31	500	20			220	
10/4/2023						35	95		15 (J)
10/5/2023									
Mean	11	60.25	49.38	133.9	30.13	41.13	65.13	92.63	4.725
Std. Dev.	3.117	11.42	20.63	151.9	7.453	4.764	21.37	67.54	4.232
Upper Lim.	14.3	72.36	71.24	500	37	46.17	100	220	15
Lower Lim.	7.696	48.14	27.51	47	18	36.08	48	48	2.4

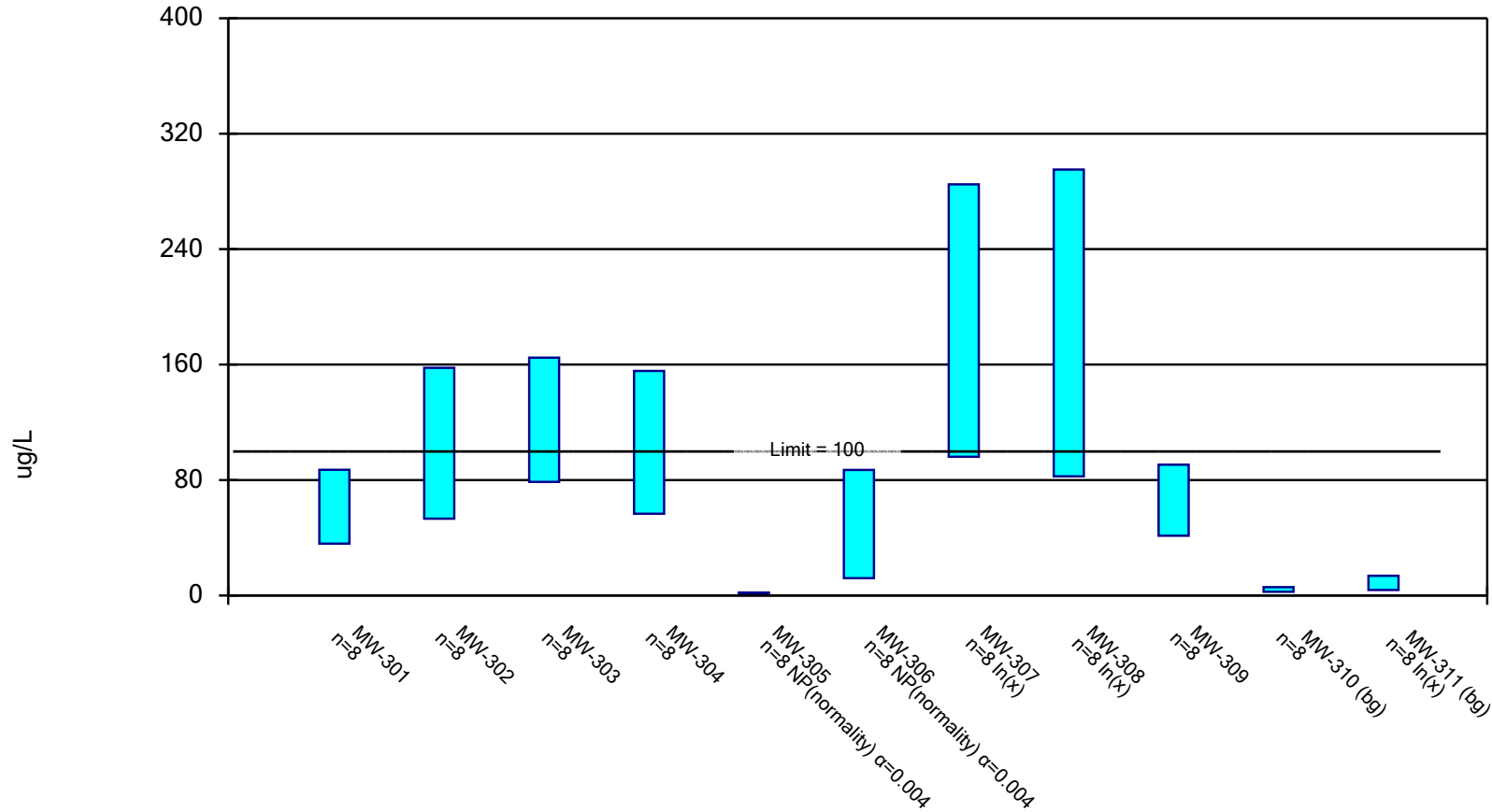
Confidence Interval

Constituent: Lithium (ug/L) Analysis Run 2/13/2024 4:29 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
6/2/2020	<2.3 (U)	<2.3 (U)
6/3/2020		
6/4/2020		
10/14/2020	<2.5 (U)	<2.5 (U)
10/15/2020		
10/16/2020		
4/19/2021	<2.5 (U)	<2.5 (U)
4/20/2021		
10/11/2021		
10/12/2021	<2.5 (U)	<2.5 (U)
10/13/2021		
10/14/2021		
4/4/2022	<2.5 (U)	<2.5 (U)
4/5/2022		
4/6/2022		
4/24/2023		
4/26/2023		
4/27/2023	<2.5 (U)	<2.5 (U)
8/1/2023		
8/2/2023		
8/3/2023	<2.5 (U)	<2.5 (U)
10/3/2023		
10/4/2023		
10/5/2023	<2.5 (U)	<2.5 (U)
Mean	2.475	2.475
Std. Dev.	0.07071	0.07071
Upper Lim.	2.5	2.5
Lower Lim.	2.3	2.3

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 2/13/2024 4:28 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 2/13/2024 4:29 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
6/12/2017									
10/11/2019									
6/2/2020									
6/3/2020	110	140	66	45	<1.1 (U)				87
6/4/2020						86	130	120	
10/14/2020								110	100
10/15/2020				140	1.1 (J)	82	140		
10/16/2020	67	130	84						
4/19/2021	46	130	120	100		87			50
4/20/2021					<1.3 (U)		140	120	
10/11/2021						69	85		
10/12/2021		91						81	39
10/13/2021	47		120	59					
10/14/2021					<1.3 (U)				
4/4/2022								100	62
4/5/2022		89	190	85		74	100		
4/6/2022	55				<1.2 (U)				
4/24/2023							320	480	
4/26/2023	29	26	94	190	1.5 (J)				
4/27/2023						12			69
8/1/2023		58	150	100	1.3 (J)		280	220	
8/2/2023						71			84
8/3/2023	73								
10/3/2023	65	180	150	130	2			260	
10/4/2023						36	290		37
10/5/2023									
Mean	61.5	105.5	121.8	106.1	1.35	64.63	185.6	186.4	66
Std. Dev.	24.13	49.28	40.64	46.65	0.2928	26.72	94.55	134.2	23.21
Upper Lim.	87.08	157.7	164.8	155.6	2	87	284.9	295.2	90.6
Lower Lim.	35.92	53.27	78.67	56.68	1.1	12	96.14	82.54	41.4

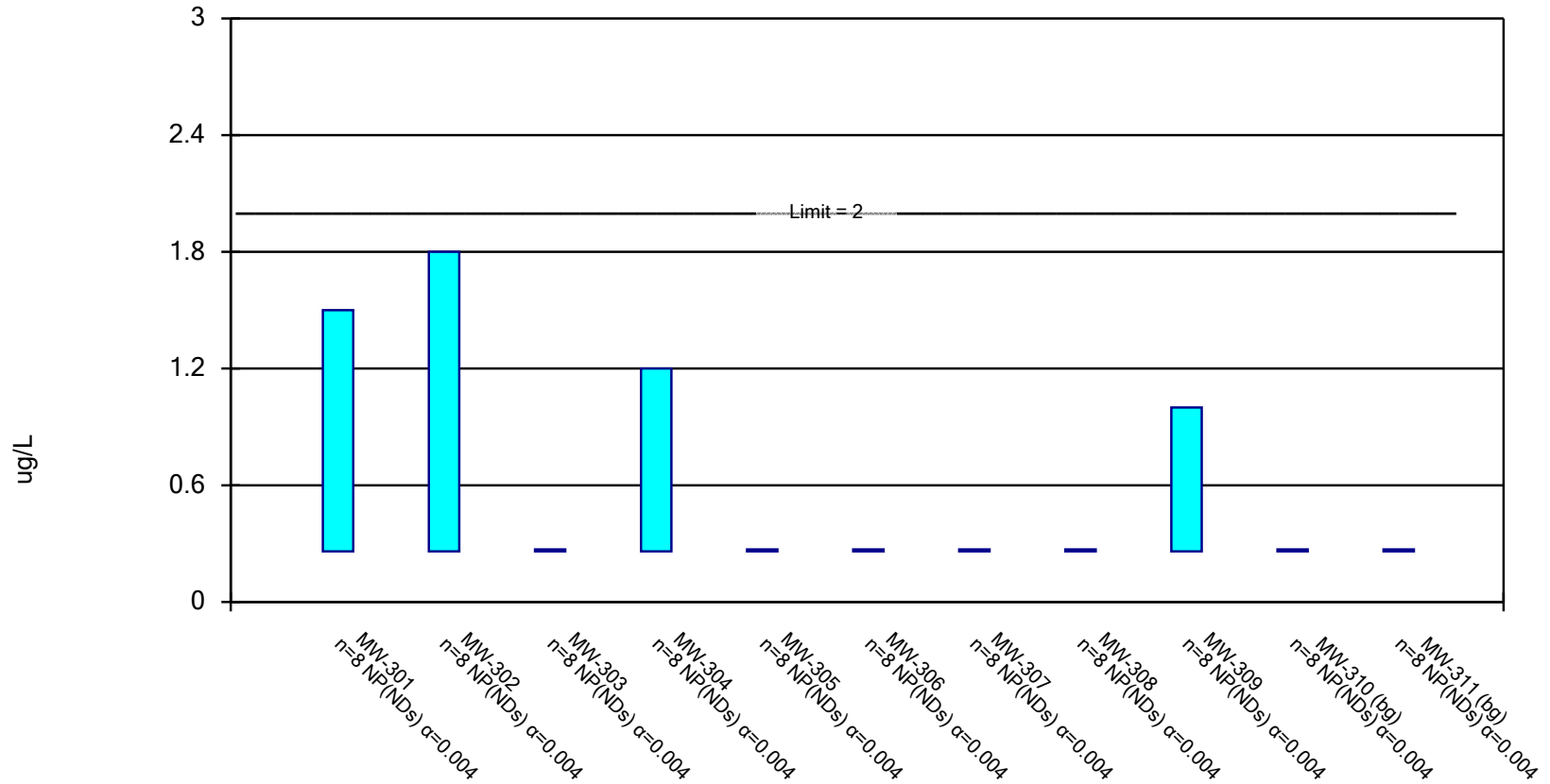
Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 2/13/2024 4:29 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
6/12/2017	10 (X)	
10/11/2019	6	
6/2/2020	5.8	11
6/3/2020		
6/4/2020		
10/14/2020	3.6	23
10/15/2020		
10/16/2020		
4/19/2021	14 (X)	4.1
4/20/2021		
10/11/2021		
10/12/2021	4.9	6.9
10/13/2021		
10/14/2021		
4/4/2022	5.2	8.9
4/5/2022		
4/6/2022		
4/24/2023		
4/26/2023		
4/27/2023	1.9 (J)	3.4
8/1/2023		
8/2/2023		
8/3/2023	2.7	5.6
10/3/2023		
10/4/2023		
10/5/2023	3.3	5.8
Mean	4.175	8.588
Std. Dev.	1.512	6.327
Upper Lim.	5.777	13.63
Lower Lim.	2.573	3.778

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 2/13/2024 4:28 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Thallium (ug/L) Analysis Run 2/13/2024 4:29 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
4/3/2019	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	
4/4/2019									<0.27 (U)
6/2/2020									
6/3/2020	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)				<0.26 (U)
6/4/2020						<0.26 (U)	<0.26 (U)	<0.26 (U)	
4/19/2021	1	1.2	<0.26 (U)	<0.26 (U)		<0.26 (U)			<0.26 (U)
4/20/2021					<0.26 (U)		<0.26 (U)	<0.26 (U)	
10/11/2021						<0.26 (U)	<0.26 (U)		
10/12/2021		<0.26 (U)						<0.26 (U)	<0.26 (U)
10/13/2021	<0.26 (U)		<0.26 (U)	<0.26 (U)					
10/14/2021					<0.26 (U)				
4/4/2022								<0.26 (U)	<0.26 (U)
4/5/2022		1.8	<0.26 (U)	<0.26 (U)		<0.26 (U)	<0.26 (U)		
4/6/2022	<0.26 (U)				<0.26 (U)				
4/24/2023							<0.26 (U)	<0.26 (U)	
4/26/2023	<1 (U)	<1 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)				
4/27/2023						<0.26 (U)			<0.26 (U)
8/1/2023		<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)		<0.26 (U)	<0.26 (U)	
8/2/2023						<0.26 (U)			<0.26 (U)
8/3/2023	1.5								
10/3/2023	<0.26 (U)	<0.26 (U)	<0.26 (U)	1.2 (J)	<0.26 (U)			<0.26 (U)	
10/4/2023						<0.26 (U)	<0.26 (U)		<1 (U)
10/5/2023									
Mean	0.6012	0.6637	0.2612	0.3787	0.2612	0.2612	0.2612	0.2612	0.3537
Std. Dev.	0.493	0.5975	0.003536	0.3319	0.003536	0.003536	0.003536	0.003536	0.2611
Upper Lim.	1.5	1.8	0.27	1.2	0.27	0.27	0.27	0.27	1
Lower Lim.	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26

Confidence Interval

Constituent: Thallium (ug/L) Analysis Run 2/13/2024 4:29 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/3/2019		
4/4/2019	<0.27 (U)	<0.27 (U)
6/2/2020	<0.26 (U)	<0.26 (U)
6/3/2020		
6/4/2020		
4/19/2021	<0.26 (U)	<0.26 (U)
4/20/2021		
10/11/2021		
10/12/2021	<0.26 (U)	<0.26 (U)
10/13/2021		
10/14/2021		
4/4/2022	<0.26 (U)	<0.26 (U)
4/5/2022		
4/6/2022		
4/24/2023		
4/26/2023		
4/27/2023	<0.26 (U)	<0.26 (U)
8/1/2023		
8/2/2023		
8/3/2023	<0.26 (U)	<0.26 (U)
10/3/2023		
10/4/2023		
10/5/2023	<0.26 (U)	<0.26 (U)
Mean	0.2612	0.2612
Std. Dev.	0.003536	0.003536
Upper Lim.	0.27	0.27
Lower Lim.	0.26	0.26

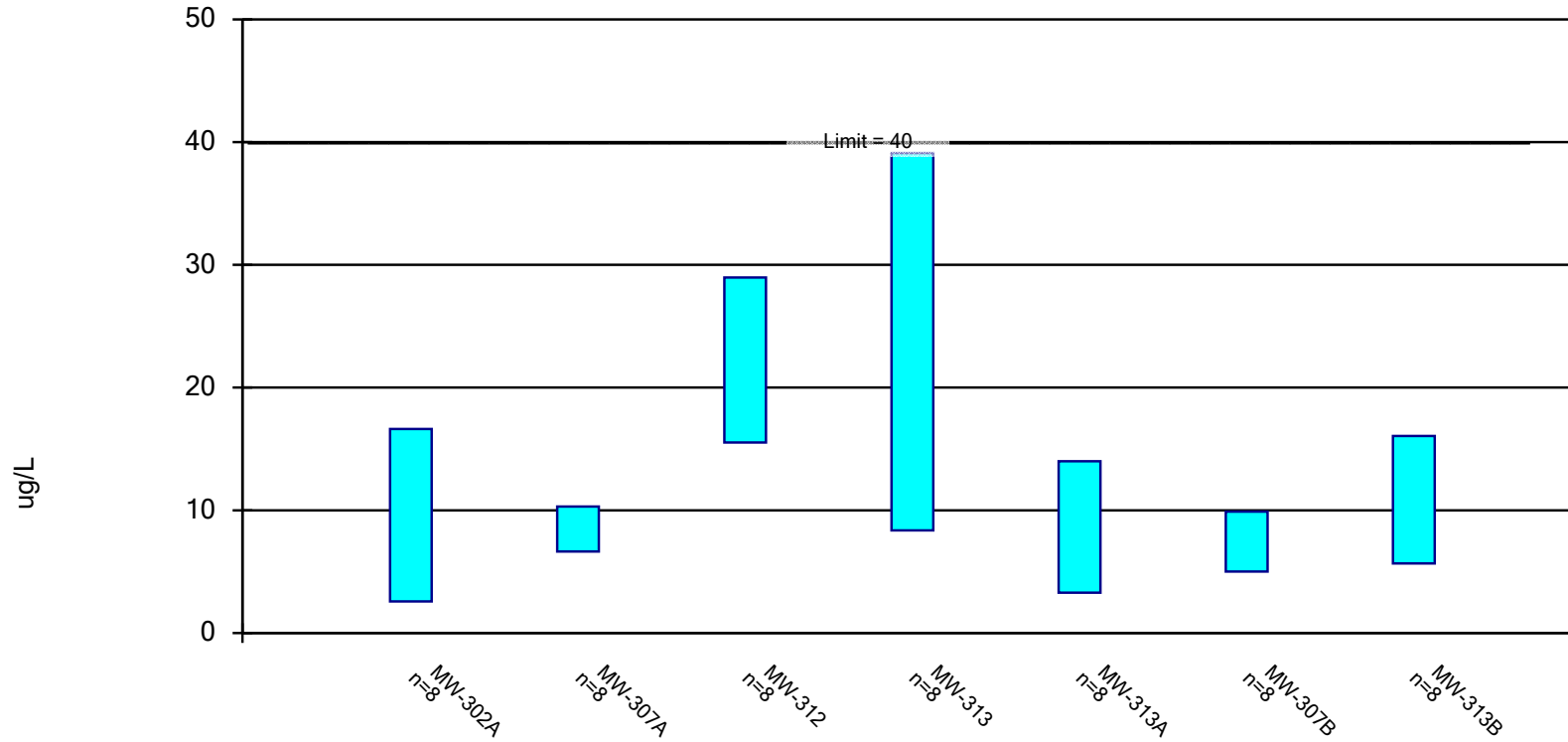
Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 2/13/2024, 4:37 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Lithium (ug/L)	MW-302A	16.62	2.569	40	No	8	12.5	None	No	0.01	Param.
Lithium (ug/L)	MW-307A	10.3	6.646	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-312	28.97	15.53	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313	39.11	8.366	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313A	14	3.288	40	No	8	12.5	None	No	0.01	Param.
Lithium (ug/L)	MW-307B	9.888	5.012	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313B	16.05	5.672	40	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-302A	106.5	6.04	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-307A	120	3.8	100	No	8	0	None	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-312	320	28	100	No	8	0	None	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-313	163.8	24.49	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-313A	110	2.8	100	No	8	0	None	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-307B	47.15	4.677	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-313B	110	9.3	100	No	8	0	None	No	0.004	NP (normality)

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 2/13/2024 4:36 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

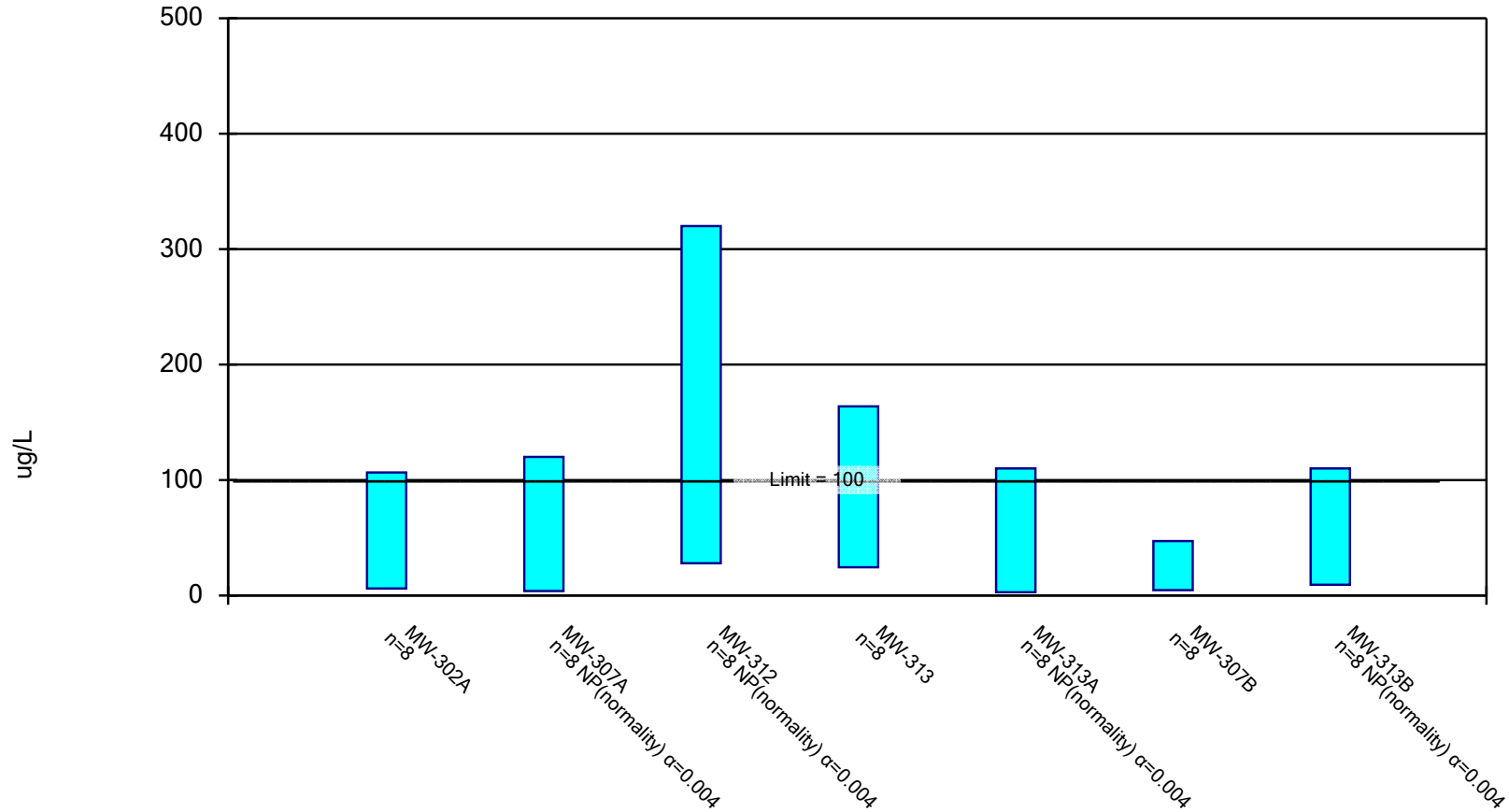
Confidence Interval

Constituent: Lithium (ug/L) Analysis Run 2/13/2024 4:37 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-302A	MW-307A	MW-312	MW-313	MW-313A	MW-307B	MW-313B
6/3/2020			22				
10/15/2020			27	51			
3/1/2021	11				15		
3/2/2021		9.1 (J)					
4/19/2021	9.6 (J)		30	36	14		
4/20/2021		8.7 (J)					
7/1/2021						9.6 (J)	18
10/11/2021		7.7 (J)				7 (J)	
10/12/2021	12						
10/13/2021				18	11		13
10/14/2021			24				
2/22/2022						9.4 (J)	13
4/5/2022	22	8.5 (J)				11	
4/6/2022			28	18	12		13
10/20/2022	13	12		32	7 (J)	6.1 (J)	14
4/24/2023		7 (J)				6.8 (J)	
4/25/2023				9.9 (J)	<2.5 (U)		4.9 (J)
4/26/2023	<2.5 (U)		11				
8/1/2023	3.3 (J)	6.2 (J)	18	12			
8/2/2023					4.1 (J)	4.7 (J)	5.1 (J)
10/3/2023	4.6 (J)		18				
10/4/2023		8.6 (J)		13	4.8 (J)	5 (J)	5.9 (J)
Mean	9.594	8.475	22.25	23.74	8.644	7.45	10.86
Std. Dev.	6.627	1.725	6.341	14.5	5.053	2.3	4.897
Upper Lim.	16.62	10.3	28.97	39.11	14	9.888	16.05
Lower Lim.	2.569	6.646	15.53	8.366	3.288	5.012	5.672

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 2/13/2024 4:36 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 2/13/2024 4:37 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-302A	MW-307A	MW-312	MW-313	MW-313A	MW-307B	MW-313B
6/3/2020			320				
10/15/2020			290	100			
3/1/2021	87				110		
3/2/2021		120					
4/19/2021	95		310	140	100		
4/20/2021		120					
7/1/2021						40	100
10/11/2021		110				25	
10/12/2021	93						
10/13/2021				170	100		100
10/14/2021			240				
2/22/2022						37	89
4/5/2022	120	120				59	
4/6/2022			210	190	100		100
10/20/2022	36	120		39	64	32	110
4/24/2023		4.3				7.5	
4/25/2023				18	2.8		14
4/26/2023	3.4		28				
8/1/2023	7.4	5.4	37	44			
8/2/2023					4.6	4.6	9.3
10/3/2023	8.5		37				
10/4/2023		3.8		52	3.5	2.2	11
Mean	56.29	75.44	184	94.13	60.61	25.91	66.66
Std. Dev.	47.41	58.84	129.3	65.69	49.06	20.03	46.1
Upper Lim.	106.5	120	320	163.8	110	47.15	110
Lower Lim.	6.04	3.8	28	24.49	2.8	4.677	9.3

E2 April 2024 Statistical Evaluation

Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 7/16/2024, 3:51 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (ug/L)	MW-301	83.02	3.776	79.8	No	8	0	ln(x)	0.01	Param.
Arsenic (ug/L)	MW-302	100	3.1	79.8	No	8	0	No	0.004	NP (normality)
Arsenic (ug/L)	MW-303	17	4	79.8	No	8	0	No	0.004	NP (normality)
Arsenic (ug/L)	MW-304	46.42	9.584	79.8	No	8	0	No	0.01	Param.
Arsenic (ug/L)	MW-305	2.42	0.4594	79.8	No	8	50	ln(x)	0.01	Param.
Arsenic (ug/L)	MW-306	49.05	31.95	79.8	No	8	0	No	0.01	Param.
Arsenic (ug/L)	MW-307	52	8.2	79.8	No	8	0	No	0.004	NP (normality)
Arsenic (ug/L)	MW-308	73	1.9	79.8	No	8	0	No	0.004	NP (normality)
Arsenic (ug/L)	MW-309	89	21	79.8	No	8	0	No	0.004	NP (normality)
Arsenic (ug/L)	MW-310 (bg)	61.16	24.34	79.8	No	8	0	No	0.01	Param.
Arsenic (ug/L)	MW-311 (bg)	29.32	4.479	79.8	No	8	0	ln(x)	0.01	Param.
Cobalt (ug/L)	MW-301	12	0.7	6	No	8	0	No	0.004	NP (normality)
Cobalt (ug/L)	MW-302	78	0.21	6	No	8	0	No	0.004	NP (normality)
Cobalt (ug/L)	MW-303	1.7	0.35	6	No	8	0	No	0.004	NP (normality)
Cobalt (ug/L)	MW-304	15.35	0.05413	6	No	8	50	ln(x)	0.01	Param.
Cobalt (ug/L)	MW-305	35.42	0.09603	6	No	8	0	ln(x)	0.01	Param.
Cobalt (ug/L)	MW-306	0.42	0.091	6	No	8	75	No	0.004	NP (NDs)
Cobalt (ug/L)	MW-307	0.92	0.091	6	No	8	62.5	No	0.004	NP (NDs)
Cobalt (ug/L)	MW-308	4.5	0.091	6	No	8	50	No	0.004	NP (normality)
Cobalt (ug/L)	MW-309	0.9638	0.1512	6	No	8	0	No	0.01	Param.
Cobalt (ug/L)	MW-310 (bg)	3.105	0.7174	6	No	8	0	No	0.01	Param.
Cobalt (ug/L)	MW-311 (bg)	2.927	0.3042	6	No	8	0	ln(x)	0.01	Param.
Lithium (ug/L)	MW-301	13.62	7.875	40	No	8	12.5	No	0.01	Param.
Lithium (ug/L)	MW-302	72.22	46.78	40	Yes	8	0	No	0.01	Param.
Lithium (ug/L)	MW-303	70.28	25.22	40	No	8	0	No	0.01	Param.
Lithium (ug/L)	MW-304	500	60	40	Yes	8	0	No	0.004	NP (normality)
Lithium (ug/L)	MW-305	37	18	40	No	8	0	No	0.004	NP (normality)
Lithium (ug/L)	MW-306	46.97	30.28	40	No	8	0	No	0.01	Param.
Lithium (ug/L)	MW-307	100	50	40	Yes	8	0	No	0.004	NP (normality)
Lithium (ug/L)	MW-308	240	51	40	Yes	8	0	No	0.004	NP (normality)
Lithium (ug/L)	MW-309	15	2.5	40	No	8	12.5	No	0.004	NP (normality)
Lithium (ug/L)	MW-310 (bg)	2.5	2.5	40	No	8	100	No	0.004	NP (NDs)
Lithium (ug/L)	MW-311 (bg)	2.8	2.5	40	No	8	87.5	No	0.004	NP (NDs)
Molybdenum (ug/L)	MW-301	71.09	40.41	100	No	8	0	No	0.01	Param.
Molybdenum (ug/L)	MW-302	179	49.51	100	No	8	0	No	0.01	Param.
Molybdenum (ug/L)	MW-303	171.1	95.89	100	No	8	0	No	0.01	Param.
Molybdenum (ug/L)	MW-304	252.4	66.94	100	No	8	0	ln(x)	0.01	Param.
Molybdenum (ug/L)	MW-305	4.3	1.1	100	No	8	37.5	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-306	88.55	34.95	100	No	8	0	No	0.01	Param.
Molybdenum (ug/L)	MW-307	320	85	100	No	8	0	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-308	413	86.7	100	No	8	0	ln(x)	0.01	Param.
Molybdenum (ug/L)	MW-309	84.61	36.64	100	No	8	0	No	0.01	Param.
Molybdenum (ug/L)	MW-310 (bg)	7.55	2.117	100	No	8	0	ln(x)	0.01	Param.
Molybdenum (ug/L)	MW-311 (bg)	12.11	3.437	100	No	8	0	ln(x)	0.01	Param.
Thallium (ug/L)	MW-301	1.5	0.26	2	No	8	75	No	0.004	NP (NDs)
Thallium (ug/L)	MW-302	1.8	0.26	2	No	8	75	No	0.004	NP (NDs)
Thallium (ug/L)	MW-303	0.57	0.26	2	No	8	100	No	0.004	NP (NDs)
Thallium (ug/L)	MW-304	1.2	0.26	2	No	8	87.5	No	0.004	NP (NDs)
Thallium (ug/L)	MW-305	0.57	0.26	2	No	8	100	No	0.004	NP (NDs)
Thallium (ug/L)	MW-306	0.57	0.26	2	No	8	100	No	0.004	NP (NDs)

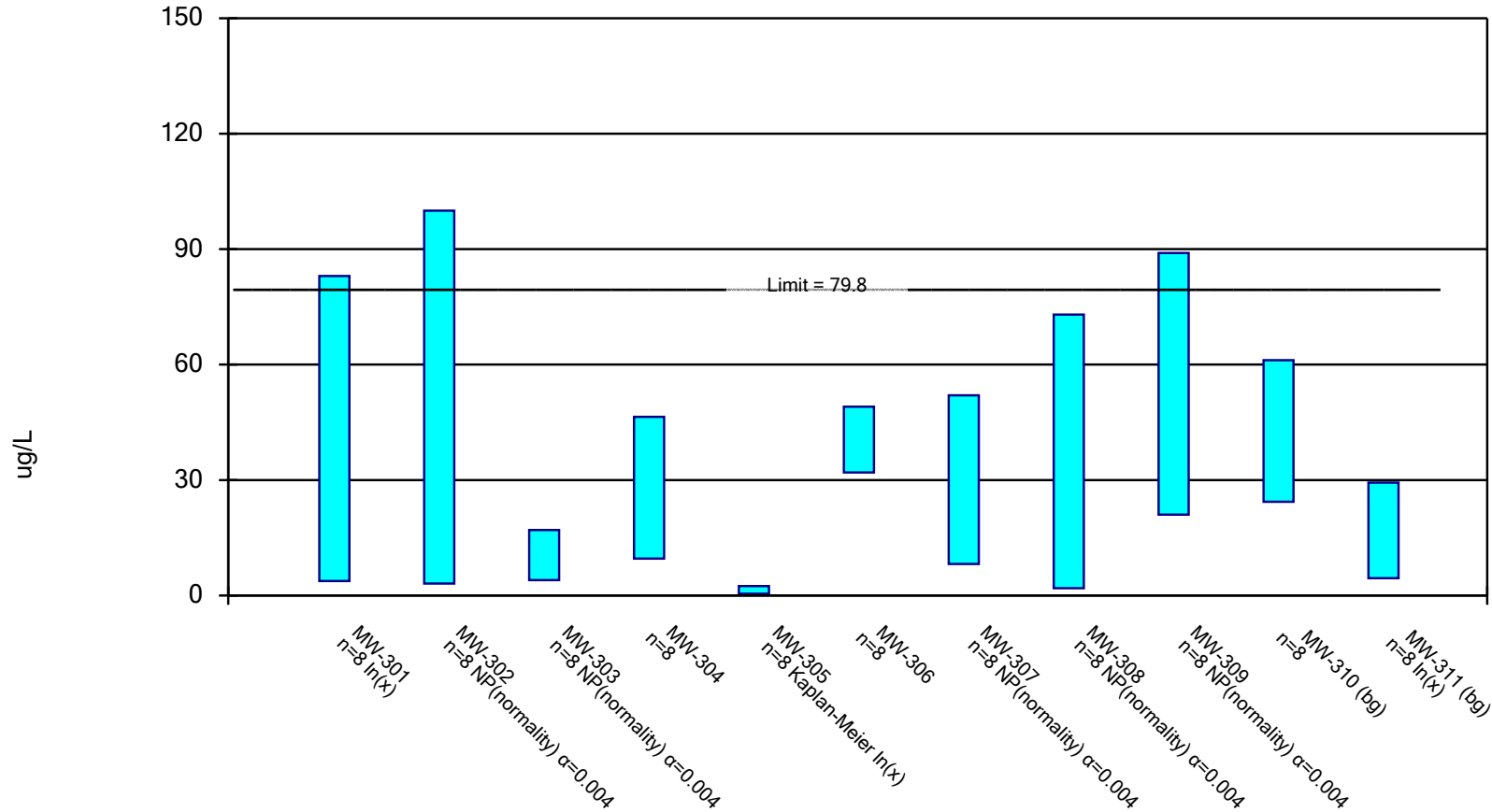
Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 7/16/2024, 3:51 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Thallium (ug/L)	MW-307	0.57	0.26	2	No	8	100	No	0.004	NP (NDs)
Thallium (ug/L)	MW-308	0.57	0.26	2	No	8	100	No	0.004	NP (NDs)
Thallium (ug/L)	MW-309	1	0.26	2	No	8	100	No	0.004	NP (NDs)
Thallium (ug/L)	MW-310 (bg)	0.57	0.26	2	No	8	100	No	0.004	NP (NDs)
Thallium (ug/L)	MW-311 (bg)	0.57	0.26	2	No	8	100	No	0.004	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 7/16/2024 3:51 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Arsenic (ug/L) Analysis Run 7/16/2024 3:51 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
10/14/2020								69	33
10/15/2020				49	<0.88 (U)	46	47		
10/16/2020	54		14						
4/19/2021	61	75	15	41		53			30
4/20/2021					<0.75 (U)		52	73	
10/11/2021						43	34		
10/12/2021		100						59	24
10/13/2021	66		14	32					
10/14/2021					<0.75 (U)				
2/22/2022		94							
4/4/2022								62	21
4/5/2022		86	5.7	44		48	41		
4/6/2022	80				0.92 (J)				
4/24/2023							8.8	1.9 (J)	
4/26/2023	2.1 (J)	3.1	4	1.4 (J)	<0.53 (U)				
4/27/2023						36			21
8/1/2023		15	12	9.6	2		8.2	5.7	
8/2/2023						32			22
8/3/2023	9.8								
10/3/2023	3.8	3.8	14	32	2.7			5.6	
10/4/2023						34	10		89
10/5/2023									
4/23/2024			17	15	3.9			5.3	
4/24/2024	7.1	4.6				32	12		
4/25/2024									21
Mean	35.48	47.69	11.96	28	1.554	40.5	26.63	35.19	32.63
Std. Dev.	32.71	44.62	4.624	17.37	1.208	8.071	18.78	32.96	23.23
Upper Lim.	83.02	100	17	46.42	2.42	49.05	52	73	89
Lower Lim.	3.776	3.1	4	9.584	0.4594	31.95	8.2	1.9	21

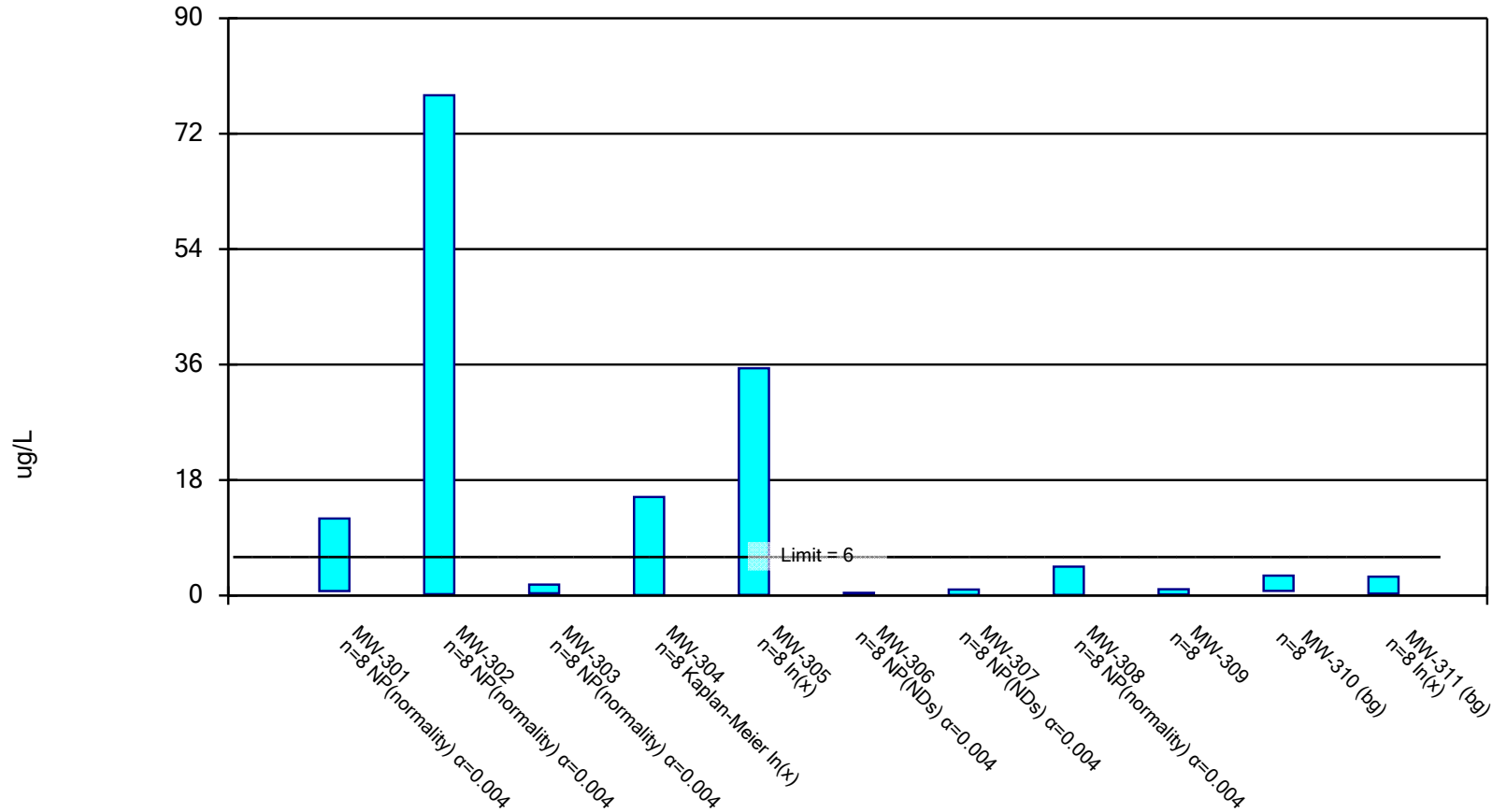
Confidence Interval

Constituent: Arsenic (ug/L) Analysis Run 7/16/2024 3:51 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
10/14/2020	63	15
10/15/2020		
10/16/2020		
4/19/2021	16 (X)	55 (X)
4/20/2021		
10/11/2021		
10/12/2021	63	22
10/13/2021		
10/14/2021		
2/22/2022		
4/4/2022	52	19
4/5/2022		
4/6/2022		
4/24/2023		
4/26/2023		
4/27/2023	32	4.7
8/1/2023		
8/2/2023		
8/3/2023	47	5.3
10/3/2023		
10/4/2023		
10/5/2023	45	5.5
4/23/2024	24	
4/24/2024		
4/25/2024		6.3
Mean	42.75	16.6
Std. Dev.	17.37	16.95
Upper Lim.	61.16	29.32
Lower Lim.	24.34	4.479

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 7/16/2024 3:51 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Cobalt (ug/L) Analysis Run 7/16/2024 3:51 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
10/14/2020								<0.091 (U)	0.33 (J)
10/15/2020				<0.36	0.15 (J)	<0.091 (U)	<0.091 (U)		
10/16/2020	0.7	0.26 (J)	0.49 (J)						
4/19/2021	0.81	0.21 (J)	0.42 (J)	<0.091 (U)		<0.091 (U)			0.39 (J)
4/20/2021					0.14 (J)		<0.091 (U)	<0.091	
10/11/2021						<0.19 (U)	<0.19 (U)		
10/12/2021		0.27 (J)						<0.19 (U)	0.29 (J)
10/13/2021	0.74		0.42 (J)	<0.19 (U)					
10/14/2021					0.21 (J)				
4/4/2022								<0.19 (U)	0.42 (J)
4/5/2022		0.21 (J)	0.35 (J)	<0.19 (U)		<0.19 (U)	<0.19 (U)		
4/6/2022	0.7				0.22 (J)				
4/24/2023							0.31 (J)	0.18 (J)	
4/26/2023	4.8	78	1.3	1.3	290				
4/27/2023						0.42 (J)			1.3
8/1/2023		41	1.4	81	9.2		0.92	4.1	
8/2/2023						0.31 (J)			0.61
8/3/2023	8.8								
10/3/2023	12	7.6	1.7	44	11			4.5	
10/4/2023						<0.17 (U)	0.41 (J)		0.95 (J)
10/5/2023									
4/23/2024			1.7	1.5	4.7			1.4	
4/24/2024	10	6.6				<0.17	<0.17		
4/25/2024									0.17 (J)
Mean	4.819	16.77	0.9725	16.08	39.45	0.204	0.2965	1.343	0.5575
Std. Dev.	4.794	28.33	0.607	30.31	101.3	0.1109	0.2739	1.879	0.3833
Upper Lim.	12	78	1.7	15.35	35.42	0.42	0.92	4.5	0.9638
Lower Lim.	0.7	0.21	0.35	0.05413	0.09603	0.091	0.091	0.091	0.1512

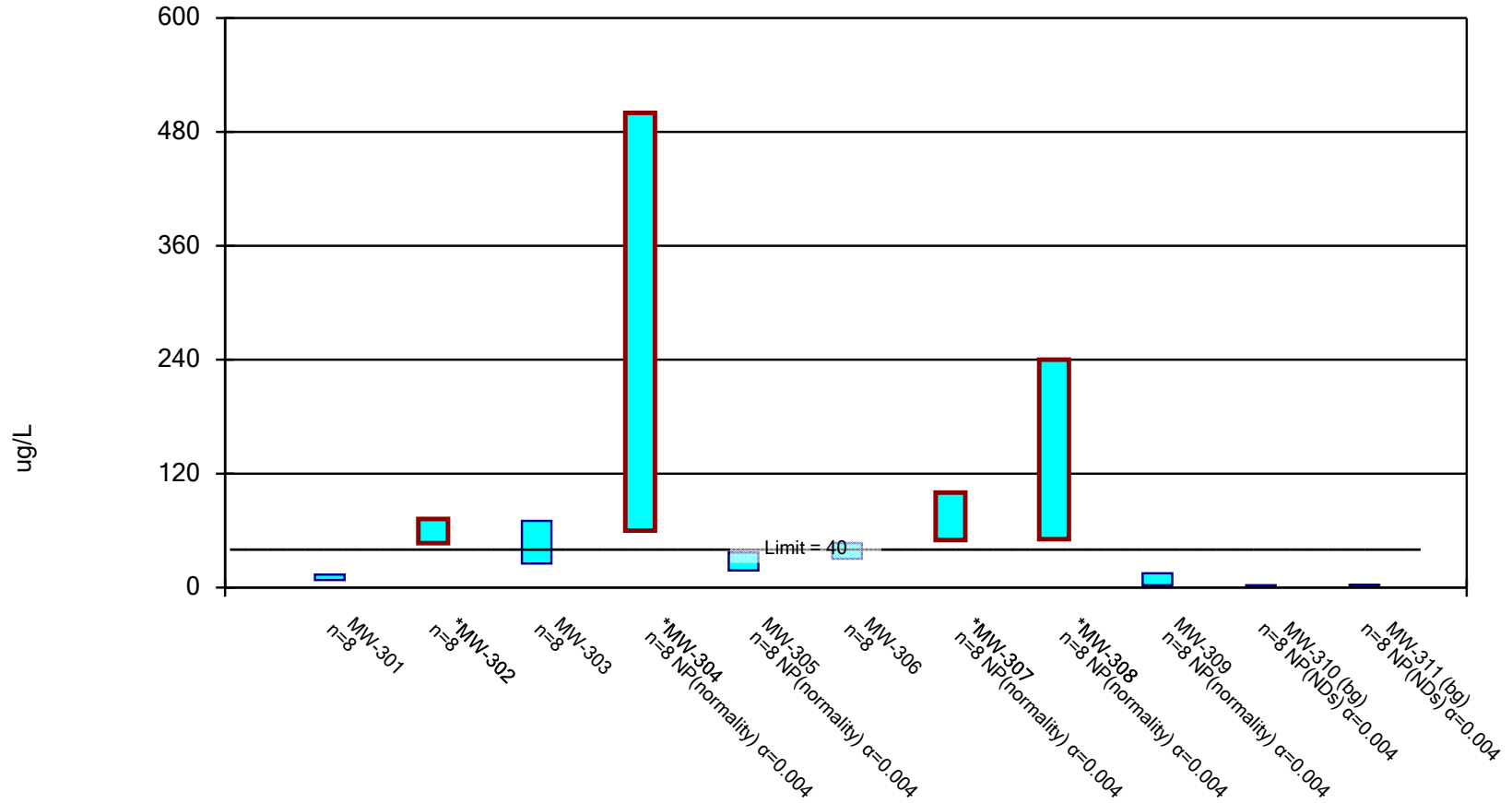
Confidence Interval

Constituent: Cobalt (ug/L) Analysis Run 7/16/2024 3:51 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
10/14/2020	1.5	0.28 (J)
10/15/2020		
10/16/2020		
4/19/2021	0.29 (J)	1.4
4/20/2021		
10/11/2021		
10/12/2021	1.4	0.31 (J)
10/13/2021		
10/14/2021		
4/4/2022	1.2	0.3 (J)
4/5/2022		
4/6/2022		
4/24/2023		
4/26/2023		
4/27/2023	3.1	3.8
8/1/2023		
8/2/2023		
8/3/2023	3.8	1.5
10/3/2023		
10/4/2023		
10/5/2023	2.4	0.89
4/23/2024	1.6	
4/24/2024		
4/25/2024		3.4
Mean	1.911	1.485
Std. Dev.	1.126	1.395
Upper Lim.	3.105	2.927
Lower Lim.	0.7174	0.3042

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 7/16/2024 3:51 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Lithium (ug/L) Analysis Run 7/16/2024 3:51 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
10/14/2020								51	<2.5 (U)
10/15/2020				92	34	42	51		
10/16/2020	10	64	59						
4/19/2021	10	64	66	75		43			3.8 (J)
4/20/2021					36		53	54	
10/11/2021						41	52		
10/12/2021		64						58	2.8 (J)
10/13/2021	11		61	60					
10/14/2021					32				
4/4/2022								57	2.9 (J)
4/5/2022		78	80	74		42	50		
4/6/2022	12				36				
4/24/2023							72	73	
4/26/2023	<10 (U)	66	23	63	37				
4/27/2023						34			4.9 (J)
8/1/2023		51	27	160	18		100	180	
8/2/2023						49			3.5 (J)
8/3/2023	11								
10/3/2023	13	40	31	500	20			220	
10/4/2023						35	95		15 (J)
10/5/2023									
4/23/2024			35	110	25			240	
4/24/2024	14	49				23	79		
4/25/2024									4.8 (J)
Mean	10.75	59.5	47.75	141.8	29.75	38.63	69	116.6	5.025
Std. Dev.	2.712	12	21.25	148.4	7.649	7.873	20.62	81.98	4.127
Upper Lim.	13.62	72.22	70.28	500	37	46.97	100	240	15
Lower Lim.	7.875	46.78	25.22	60	18	30.28	50	51	2.5

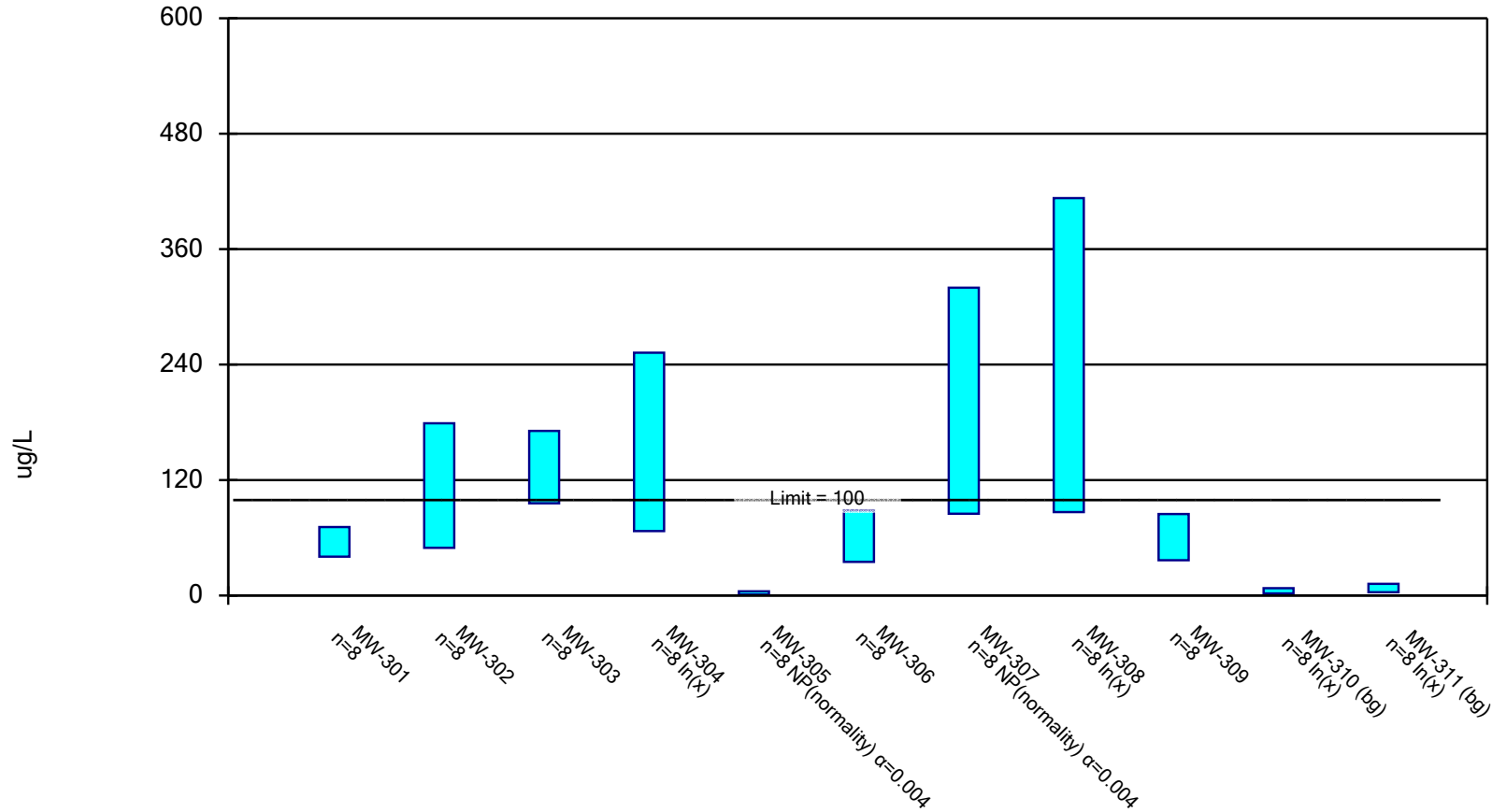
Confidence Interval

Constituent: Lithium (ug/L) Analysis Run 7/16/2024 3:51 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
10/14/2020	<2.5 (U)	<2.5 (U)
10/15/2020		
10/16/2020		
4/19/2021	<2.5 (U)	<2.5 (U)
4/20/2021		
10/11/2021		
10/12/2021	<2.5 (U)	<2.5 (U)
10/13/2021		
10/14/2021		
4/4/2022	<2.5 (U)	<2.5 (U)
4/5/2022		
4/6/2022		
4/24/2023		
4/26/2023		
4/27/2023	<2.5 (U)	<2.5 (U)
8/1/2023		
8/2/2023		
8/3/2023	<2.5 (U)	<2.5 (U)
10/3/2023		
10/4/2023		
10/5/2023	<2.5 (U)	<2.5 (U)
4/23/2024	<2.5	
4/24/2024		
4/25/2024		2.8 (J)
Mean	2.5	2.538
Std. Dev.	0	0.1061
Upper Lim.	2.5	2.8
Lower Lim.	2.5	2.5

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 7/16/2024 3:51 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 7/16/2024 3:51 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
10/14/2020								110	100
10/15/2020				140	1.1 (J)	82	140		
10/16/2020	67	130	84						
4/19/2021	46	130	120	100		87			50
4/20/2021					<1.3 (U)		140	120	
10/11/2021						69	85		
10/12/2021		91						81	39
10/13/2021	47		120	59					
10/14/2021					<1.3 (U)				
4/4/2022								100	62
4/5/2022		89	190	85		74	100		
4/6/2022	55				<1.2 (U)				
4/24/2023							320	480	
4/26/2023	29	26	94	190	1.5 (J)				
4/27/2023						12			69
8/1/2023		58	150	100	1.3 (J)		280	220	
8/2/2023						71			84
8/3/2023	73								
10/3/2023	65	180	150	130	2			260	
10/4/2023						36	290		37
10/5/2023									
4/23/2024			160	470	4.3			560	
4/24/2024	64	210				63	320		
4/25/2024									44
Mean	55.75	114.3	133.5	159.3	1.75	61.75	209.4	241.4	60.63
Std. Dev.	14.47	61.08	35.48	131.6	1.066	25.29	102.1	184	22.63
Upper Lim.	71.09	179	171.1	252.4	4.3	88.55	320	413	84.61
Lower Lim.	40.41	49.51	95.89	66.94	1.1	34.95	85	86.7	36.64

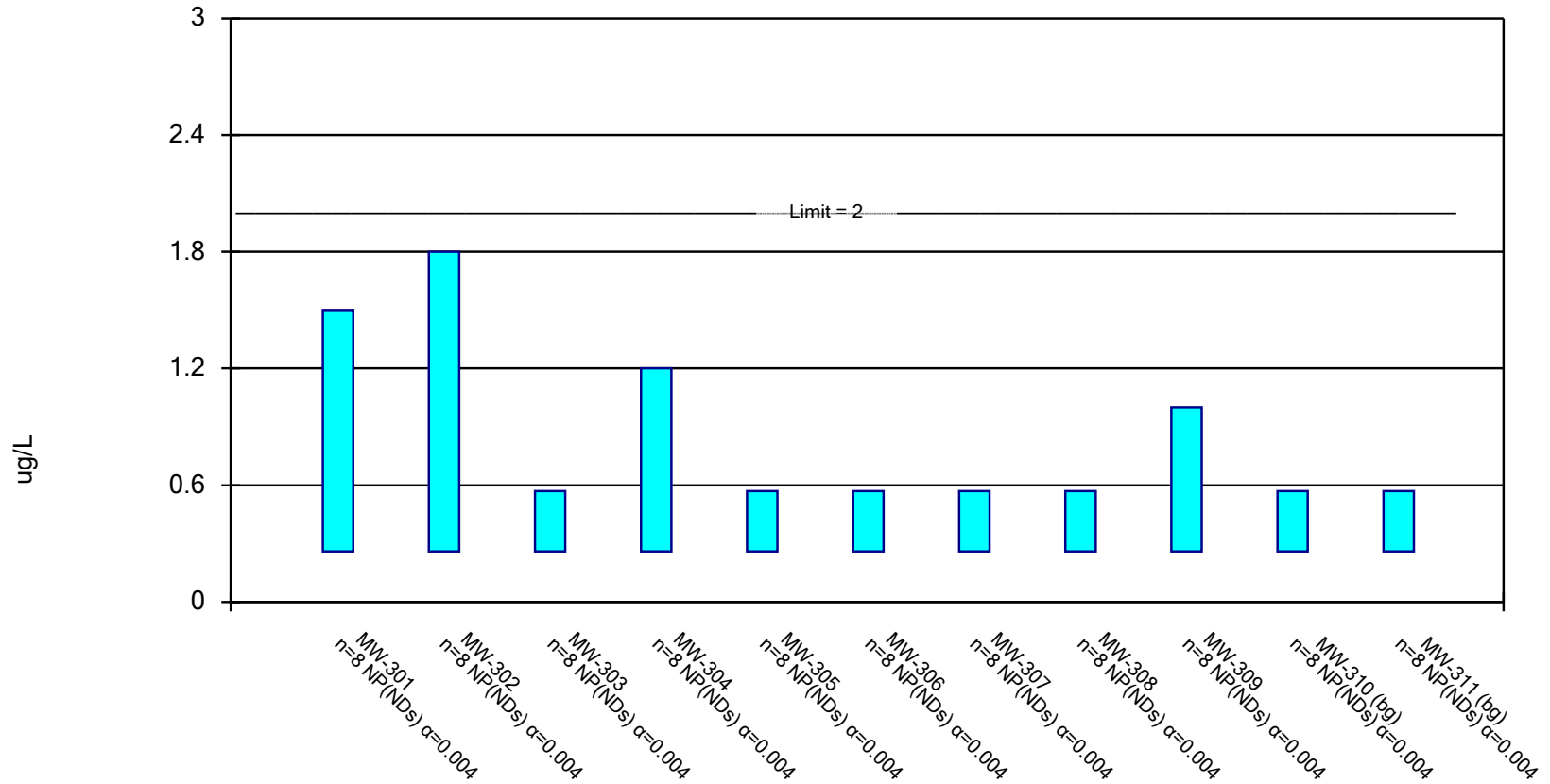
Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 7/16/2024 3:51 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
10/14/2020	3.6	23
10/15/2020		
10/16/2020		
4/19/2021	14 (X)	4.1
4/20/2021		
10/11/2021		
10/12/2021	4.9	6.9
10/13/2021		
10/14/2021		
4/4/2022	5.2	8.9
4/5/2022		
4/6/2022		
4/24/2023		
4/26/2023		
4/27/2023	1.9 (J)	3.4
8/1/2023		
8/2/2023		
8/3/2023	2.7	5.6
10/3/2023		
10/4/2023		
10/5/2023	3.3	5.8
4/23/2024	3	
4/24/2024		
4/25/2024		4.7
Mean	4.825	7.8
Std. Dev.	3.865	6.376
Upper Lim.	7.55	12.11
Lower Lim.	2.117	3.437

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 7/16/2024 3:51 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Thallium (ug/L) Analysis Run 7/16/2024 3:51 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
6/2/2020									
6/3/2020	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)				<0.26 (U)
6/4/2020						<0.26 (U)	<0.26 (U)	<0.26 (U)	
4/19/2021	1	1.2	<0.26 (U)	<0.26 (U)		<0.26 (U)			<0.26 (U)
4/20/2021					<0.26 (U)		<0.26 (U)	<0.26 (U)	
10/11/2021						<0.26 (U)	<0.26 (U)		
10/12/2021		<0.26 (U)						<0.26 (U)	<0.26 (U)
10/13/2021	<0.26 (U)		<0.26 (U)	<0.26 (U)					
10/14/2021					<0.26 (U)				
4/4/2022								<0.26 (U)	<0.26 (U)
4/5/2022		1.8	<0.26 (U)	<0.26 (U)		<0.26 (U)	<0.26 (U)		
4/6/2022	<0.26 (U)				<0.26 (U)				
4/24/2023							<0.26 (U)	<0.26 (U)	
4/26/2023	<1 (U)	<1 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)				
4/27/2023						<0.26 (U)			<0.26 (U)
8/1/2023		<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)		<0.26 (U)	<0.26 (U)	
8/2/2023						<0.26 (U)			<0.26 (U)
8/3/2023	1.5								
10/3/2023	<0.26 (U)	<0.26 (U)	<0.26 (U)	1.2 (J)	<0.26 (U)			<0.26 (U)	
10/4/2023						<0.26 (U)	<0.26 (U)		<1 (U)
10/5/2023									
4/23/2024			<0.57	<0.57	<0.57			<0.57	
4/24/2024	<0.57	<0.57				<0.57	<0.57		
4/25/2024									<0.57
Mean	0.6387	0.7012	0.2987	0.4162	0.2987	0.2987	0.2987	0.2987	0.3912
Std. Dev.	0.4753	0.5783	0.1096	0.3347	0.1096	0.1096	0.1096	0.1096	0.2688
Upper Lim.	1.5	1.8	0.57	1.2	0.57	0.57	0.57	0.57	1
Lower Lim.	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26

Confidence Interval

Constituent: Thallium (ug/L) Analysis Run 7/16/2024 3:51 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
6/2/2020	<0.26 (U)	<0.26 (U)
6/3/2020		
6/4/2020		
4/19/2021	<0.26 (U)	<0.26 (U)
4/20/2021		
10/11/2021		
10/12/2021	<0.26 (U)	<0.26 (U)
10/13/2021		
10/14/2021		
4/4/2022	<0.26 (U)	<0.26 (U)
4/5/2022		
4/6/2022		
4/24/2023		
4/26/2023		
4/27/2023	<0.26 (U)	<0.26 (U)
8/1/2023		
8/2/2023		
8/3/2023	<0.26 (U)	<0.26 (U)
10/3/2023		
10/4/2023		
10/5/2023	<0.26 (U)	<0.26 (U)
4/23/2024	<0.57	
4/24/2024		
4/25/2024		<0.57
Mean	0.2987	0.2987
Std. Dev.	0.1096	0.1096
Upper Lim.	0.57	0.57
Lower Lim.	0.26	0.26

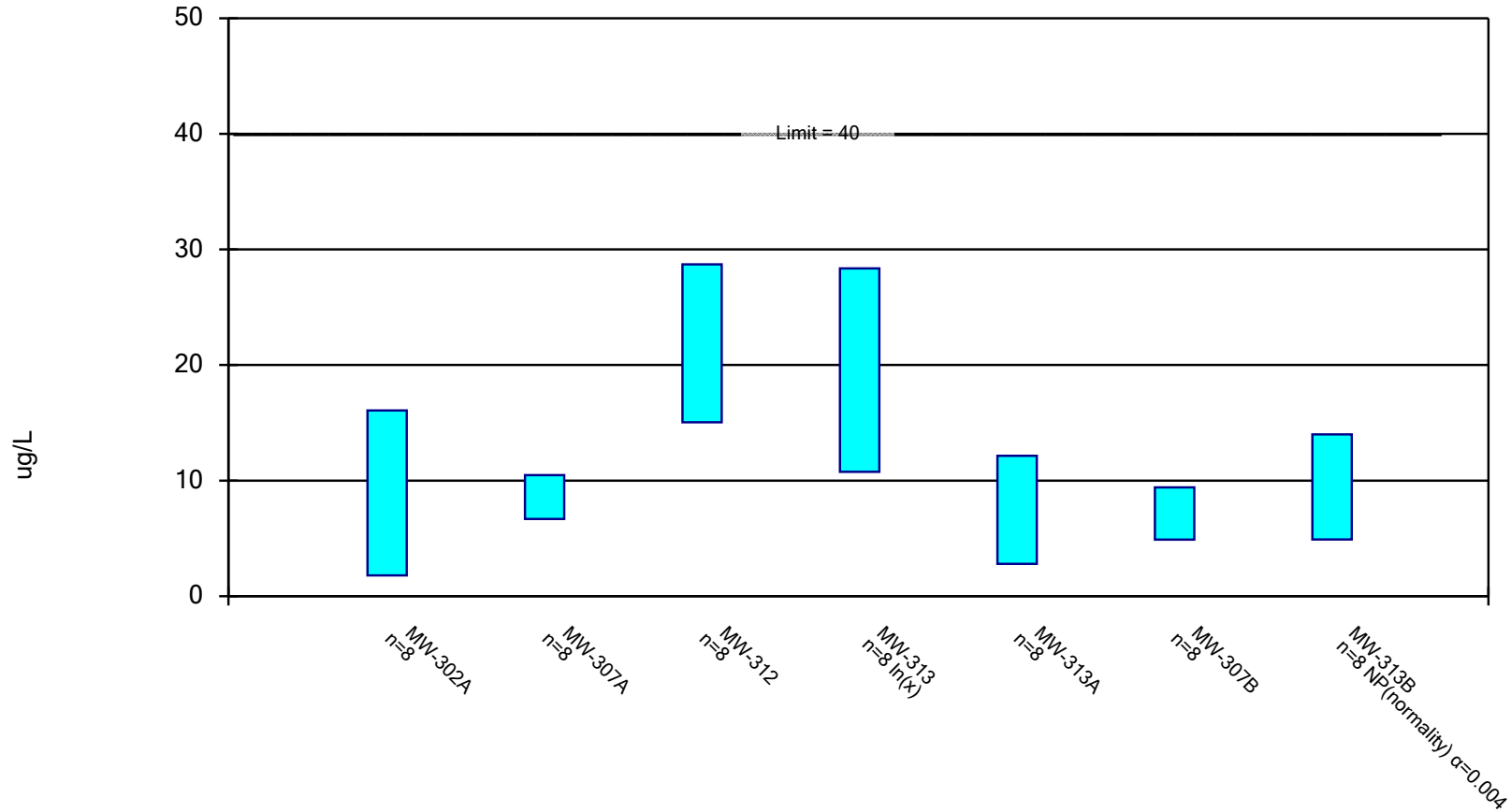
Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 7/16/2024, 3:52 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Lithium (ug/L)	MW-302A	16.07	1.797	40	No	8	12.5	No	0.01	Param.
Lithium (ug/L)	MW-307A	10.47	6.679	40	No	8	0	No	0.01	Param.
Lithium (ug/L)	MW-312	28.71	15.04	40	No	8	0	No	0.01	Param.
Lithium (ug/L)	MW-313	28.36	10.75	40	No	8	0	ln(x)	0.01	Param.
Lithium (ug/L)	MW-313A	12.15	2.788	40	No	8	12.5	No	0.01	Param.
Lithium (ug/L)	MW-307B	9.408	4.892	40	No	8	0	No	0.01	Param.
Lithium (ug/L)	MW-313B	14	4.9	40	No	8	0	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-302A	101.6	5.505	100	No	8	0	ln(x)	0.01	Param.
Molybdenum (ug/L)	MW-307A	120	3.8	100	No	8	0	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-312	310	28	100	No	8	0	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-313	159.8	27.46	100	No	8	0	ln(x)	0.01	Param.
Molybdenum (ug/L)	MW-313A	100	2.8	100	No	8	0	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-307B	43.18	1.147	100	No	8	0	No	0.01	Param.
Molybdenum (ug/L)	MW-313B	110	9.3	100	No	8	0	No	0.004	NP (normality)

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 7/16/2024 3:52 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

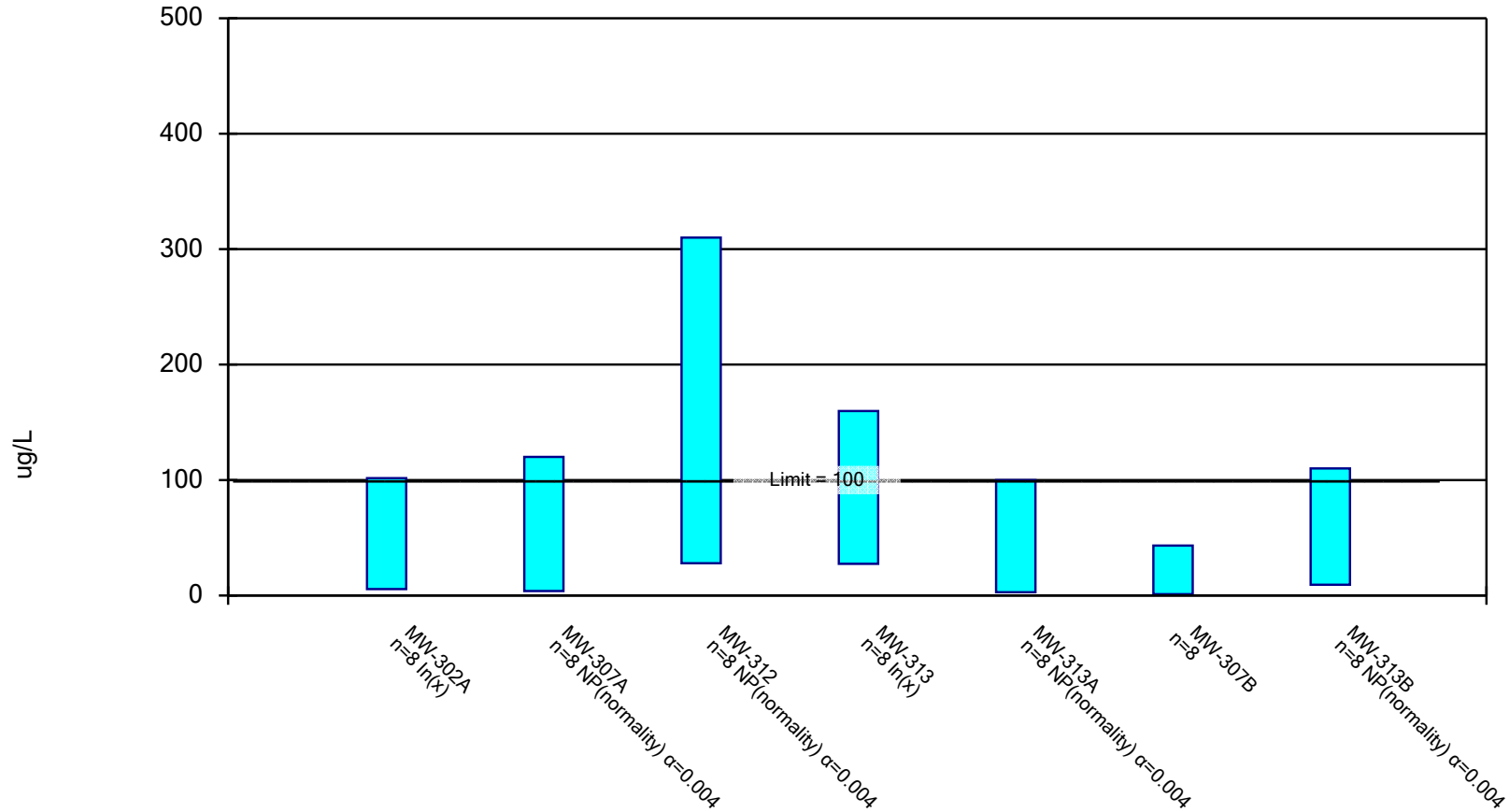
Confidence Interval

Constituent: Lithium (ug/L) Analysis Run 7/16/2024 3:52 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-302A	MW-307A	MW-312	MW-313	MW-313A	MW-307B	MW-313B
10/15/2020			27				
4/19/2021	9.6 (J)		30	36	14		
4/20/2021		8.7 (J)					
10/11/2021		7.7 (J)				7 (J)	
10/12/2021	12						
10/13/2021				18	11		13
10/14/2021			24				
2/22/2022						9.4 (J)	13
4/5/2022	22	8.5 (J)				11	
4/6/2022			28	18	12		13
10/20/2022	13	12		32	7 (J)	6.1 (J)	14
4/24/2023		7 (J)				6.8 (J)	
4/25/2023				9.9 (J)	<2.5 (U)		4.9 (J)
4/26/2023	<2.5 (U)		11				
8/1/2023	3.3 (J)	6.2 (J)	18	12			
8/2/2023					4.1 (J)	4.7 (J)	5.1 (J)
10/3/2023	4.6 (J)		18				
10/4/2023		8.6 (J)		13	4.8 (J)	5 (J)	5.9 (J)
4/23/2024			19				
4/24/2024	5.7 (J)	9.9 (J)		15		7.2 (J)	
4/25/2024					5.6 (J)		6.6 (J)
Mean	8.931	8.575	21.88	19.24	7.469	7.15	9.438
Std. Dev.	6.731	1.789	6.446	9.587	4.416	2.13	4.121
Upper Lim.	16.07	10.47	28.71	28.36	12.15	9.408	14
Lower Lim.	1.797	6.679	15.04	10.75	2.788	4.892	4.9

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.




Constituent: Molybdenum Analysis Run 7/16/2024 3:52 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 7/16/2024 3:52 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-302A	MW-307A	MW-312	MW-313	MW-313A	MW-307B	MW-313B
10/15/2020			290				
4/19/2021	95		310	140	100		
4/20/2021		120					
10/11/2021		110				25	
10/12/2021	93						
10/13/2021				170	100		100
10/14/2021			240				
2/22/2022						37	89
4/5/2022	120	120				59	
4/6/2022			210	190	100		100
10/20/2022	36	120		39	64	32	110
4/24/2023		4.3				7.5	
4/25/2023				18	2.8		14
4/26/2023	3.4		28				
8/1/2023	7.4	5.4	37	44			
8/2/2023					4.6	4.6	9.3
10/3/2023	8.5		37				
10/4/2023		3.8		52	3.5	2.2	11
4/23/2024			31				
4/24/2024	12	5.2		51		10	
4/25/2024					5.2		13
Mean	46.91	61.09	147.9	88	47.51	22.16	55.79
Std. Dev.	47.88	60.4	126.2	67.33	47.97	19.83	47.35
Upper Lim.	101.6	120	310	159.8	100	43.18	110
Lower Lim.	5.505	3.8	28	27.46	2.8	1.147	9.3



Appendix F

Statistical Update

August 14, 2024
File No. 25224066.00

TECHNICAL MEMORANDUM

SUBJECT: Statistical Evaluation of Groundwater Monitoring Results – UPL and UTL Update
Burlington Generating Station

PREPARED BY: Ryan Matzuk

CHECKED BY: Sherren Clark

This memorandum and the attachments provide an update to the upper prediction limits (UPL) and upper tolerance limits (UTL) calculated for the groundwater monitoring system at the Burlington Generating Station (BGS). As part of the evaluation of the April 2024 monitoring results, the background data set for the UPL and UTL calculations is being updated to include data from the background wells collected through October 2023. The previous update was completed in August 2021 and included data from the background wells collected through October 2020. This memo addresses updated UPLs for Appendix III parameters and UTLs for Appendix IV parameters.

Because the arsenic background concentrations exceed the EPA's Maximum Contaminant Level (MCL), the arsenic UTL is also established as the site's Groundwater Protection Standard (GPS) for arsenic.

STATISTICAL METHOD

For comparison to background, groundwater monitoring data for the multiunit system at the BGS, is evaluated in accordance with 40 CFR 257.93(f)(3), using a prediction interval procedure or tolerance interval procedure, in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the UPL or UTL.

For assessment monitoring parameters, groundwater monitoring data is evaluated by comparing the lower confidence limit (LCL) for the arithmetic mean of the monitoring results to the GPS established in accordance with 40 CFR 257.95(h).

Statistical evaluation is performed using commercially available software (*Sanitas for Groundwater*® or similar) in general accordance with the U.S. Environmental Protection Agency's (U.S. EPA's) *Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities* dated March 2009 (Unified Guidance) (U.S. EPA, 2009) and generally accepted procedures.

Under the interwell approach for comparison to background, monitoring results are compared to UPLs and UTLs calculated based on background monitoring results from the background wells: MW-310 and MW-311.



The BGS monitoring system includes two upgradient/background monitoring wells (MW-310 and MW-311), nine compliance monitoring wells, and seven delineation monitoring wells. An additional upgradient piezometer was installed in 2020, MW-310A, which is located near background monitoring well MW-310. Monitoring well MW-310A was installed to evaluate background conditions in the deeper groundwater. An additional supplemental background well, MW-314, was installed in 2022 to provide additional groundwater quality data in the alluvial aquifer. Results from MW-310A and MW-314 are not being used in the statistical analysis because the hydrogeologic conditions in these wells and the monitoring results obtained to date suggest that these wells may not represent background conditions for the downgradient compliance wells.

Background concentrations of arsenic exceed the MCL of 10 micrograms per liter; therefore, the GPS for arsenic is based on the UPL and will be updated to the new UPL value.

TIME SERIES PLOTS

Time series plots are prepared for the required monitoring parameters to show the concentration variations over time at background monitoring wells MW-310 and MW-311. Time series graphs are included in **Attachment 1**. In the graphs, non-detect values are shown with hollow symbols, while detected values have solid symbols. For some Appendix IV parameters, many background results are non-detect, but detection limits may have increased or decreased since the earliest data were collected.

Based on the review of the time series plots, it appears possible that the samples from the two background wells may have been switched in the April 2021 event, but this cannot be confirmed. Because the background well results are pooled for the UPL and UTL calculations, a switch between the two wells will not affect the calculated values. Since the sample switch is not confirmed, the results were left as is for the outlier analysis and background update.

OUTLIER ANALYSIS - INTERWELL

For interwell analysis, an outlier evaluation is performed for background monitoring results at the upgradient wells. A statistical outlier is a value that is extremely different from the other values in the data set. The Sanitas outlier tests identify data points that do not appear to fit the distribution of the rest of the data set and determine if they differ significantly from the rest of the data. The outlier analysis performed in Sanitas includes the following steps:

- 1) Run normality test (Shapiro Wilk/Francia).
- 2) If normally distributed, run U.S. EPA's 1989 Outlier Test to identify suspected outliers.
 - a) If number of background samples is less than or equal to 25, run Dixon's test for suspected outliers.
 - b) If number of background samples is more than 25, run Rosner's test for suspected outliers.
- 3) If not normally distributed, run Tukey's test for outliers.
- 4) Review data flagged as possible outliers to evaluate whether they should be removed from the background data set. Also review time series plots for possible outliers that were not picked up in the statistical evaluation (e.g., outlier test may not identify outliers when two values are similar to each other, but very different from all other data).

Results identified as statistical outliers are checked for possible lab instrument failure, field collection problems, or data entry errors; however, outliers may exist naturally in the data if there is an extremely wide inherent or temporal variability in the data. The Unified Guidance states that unless a likely error can be identified, the outlier should not be removed.

For the evaluation of interwell background data collected through the October 2023 sampling event, the following background values were identified by Sanitas as potential outliers and handled as described:

- **Arsenic (MW-310).** One low result from the April 2021 sampling event was flagged as a statistical outlier. This result was removed from the dataset because it appears to be an extreme value relative to all other results for this well. Based on the data collected before and after the April 2021 event, it appears that the samples from MW-310 and MW-311 may have been switched during the April 2021 event, but this could not be confirmed.
- **Arsenic (MW-311).** One high result from the April 2021 sampling event was not identified by Sanitas as a statistical outlier, but was manually flagged and removed from the dataset because it appears to be an extreme value relative to all other results for this well. As noted above, it appears that the samples from MW-310 and MW-311 may have been switched during the April 2021 event, but this could not be confirmed.
- **Barium (MW-311).** One high result from the April 2021 sampling event was flagged as a statistical outlier. This result was not removed from the dataset because there was no known explanation for the higher result and it appeared to be within the range of potential natural variation. This high result for MW-311 may be associated with the possible sample switch noted above.
- **Boron (MW-310).** One high result from the June 2017 event was flagged as a statistical outlier. This result was removed from the dataset because it appears to be an extreme value relative to all other results for this well.
- **Boron (MW-311).** One low result from the August 2017 event was not identified by Sanitas as a statistical outlier, but was manually flagged and removed from the dataset because it appears to be an extreme value relative to all other results for this well.
- **Fluoride (MW-311).** Two results from June 2020 and October 2020 were previously flagged as statistical outliers, including one high and one low result, during the most recent statistical update in 2021. Only the June 2020 result was flagged as an outlier during this statistical update. The results appear to reflect an increase in variability in fluoride concentrations, but do not show a trend and appear to be within the range of potential natural variability for background (all values are less than 0.7 mg/L); therefore, these values were retained in the dataset.
- **Molybdenum (MW-310).** One high result from the April 2021 sampling event was flagged as a statistical outlier by Sanitas. This result was removed from the dataset because it appears to be an extreme value relative to all other results for this well. A second high result from the June 2017 sampling event was not identified by Sanitas as a statistical outlier during this statistical evaluation, but was identified as a statistical outlier in a

previous UPL update dated August 6, 2021. The high result from June 2017 was manually flagged and removed from the dataset because it also appears to be an extreme value relative to all other results for this well.

The outlier analysis output from Sanitas is included in **Attachment 2**.

BACKGROUND UPDATE

The background data pool was updated in accordance with the Unified Guidance, which recommends updating background every 2 to 3 years for semiannual sampling. Prior to expanding the data pool, the original background data set (4/2016 through 10/2020) and the data to be added (3/2021 through 10/2023) were compared. The Unified Guidance states that recently collected measurements from the background wells can be added to the existing pool if a Student's t-test or Wilcoxon rank-sum test finds no significant difference between the two groups at the 1 percent level of significance.

The comparison uses Welch's t-test for normally distributed data and the Mann-Whitney test for non-normal data. (Note: The Sanitas output labels the earlier background dataset as "Background" and the later background dataset as "Compliance," but all data from background wells MW-310 and MW-311 are background data.)

The Sanitas background group comparison for the BGS background data sets, included in **Attachment 3**, indicated no significant difference at the 1 percent level, except for antimony, beryllium, cadmium, chromium, mercury, selenium, and sulfate. With the exception of sulfate, most results for these parameters were non-detect and the shift reflected a change in detection limits. Based on these results, the more recent data can be added to the background pool. For sulfate, the reported concentrations at MW-310 had shifted up in the last three monitoring events. These three results were excluded from the dataset and the comparison was re-run (**Attachment 3**). With the three results removed, there was no significant difference between the background data sets at the 1 percent level, so the remaining recent results can be added to the background data pool.

INTERWELL PREDICTION LIMITS

Interwell prediction limits are calculated using background data from the upgradient monitoring wells (MW-310 and MW-311) for each monitored constituent, with outliers and the excluded recent sulfate data removed as noted above. During this evaluation of compliance monitoring, groundwater results from April 2016 through October 2023 were included to calculate the interwell prediction limits. The prediction limit analysis performed in Sanitas includes the following steps:

- 1) If 100 percent of the background values are non-detect, the Double Quantification rule applies and no prediction limit is calculated.
- 2) If more than 50 percent of results are non-detect, then a non-parametric prediction limit is calculated.
- 3) If 50 percent or fewer of the results are non-detect, run normality test (Shapiro Wilk/Francia) to assess whether the data fit a normal distribution or can be transformed to fit a normal distribution (e.g., lognormal).

- 4) If normal or transformed normal, calculate parametric prediction limit.
- 5) If not normal or transformed normal, calculate non-parametric prediction limit.

Consistent with the Unified Guidance, parametric prediction limits are calculated based on a 1-of-2 retesting protocol and a 10 percent site-wide false positive rate. Sanitas establishes the per-test significance level based on user inputs of the number of events per year, number of constituents being evaluated, and number of compliance wells. For the update, the following values were used:

Parameter	Value	Comments
Evaluations per year	2	Spring and Fall events
Constituents analyzed	7	Total of 7 constituents Appendix III analyzed, all constituents detected at least once
Compliance wells	9	9 compliance wells at the waste boundary

Non-parametric prediction limits are also based on a 1-of-2 retesting protocol. Due to the small sample size, the false positive rate for the non-parametric tests is currently higher than for the parametric tests, but will continue to go down as more background data are obtained.

For results with 100 percent non-detects in the background data, evaluation under the Double Quantification Rule means that a statistically significant increase (SSI) has not occurred for a compliance well unless two sample results from the well exceed the laboratory’s reporting limit or quantification limit. All of the constituents were detected at least one in the background wells; therefore, UPLs were calculated for all. Although UPLs were calculated for constituents with a high proportion of non-detects, a future result will not be identified as an SSI unless two sample results exceed both the UPL and the reporting limit or quantification limit.

For evaluation of parameters with less than 100 percent non-detects in the background sampling, the non-detects were adjusted using the Kaplan-Meier technique, unless the non-detects represent less than 15 percent of the total samples, in which case one-half of the detection limit was used.

Interwell prediction limit analysis results are included in **Attachment 4**.

INTERWELL TOLERANCE LIMITS

Interwell tolerance limits for Appendix IV parameters were calculated using background data from the upgradient monitoring wells (MW-310 and MW-311) for each monitored constituent, with outliers removed as noted above. During this evaluation of compliance monitoring, groundwater results from April 2016 through October 2023 were included to calculate the interwell tolerance limits. The tolerance limit analysis was performed in Sanitas, including the same five steps listed above. Management of non-detect results in the background data was also the same as described above for prediction limits. As recommended in the Unified Guidance, the UTL was calculated with 95 percent confidence and 95 percent coverage. Interwell tolerance limits analysis results are included in **Attachment 5**.

TECHNICAL MEMORANDUM

August 14, 2024

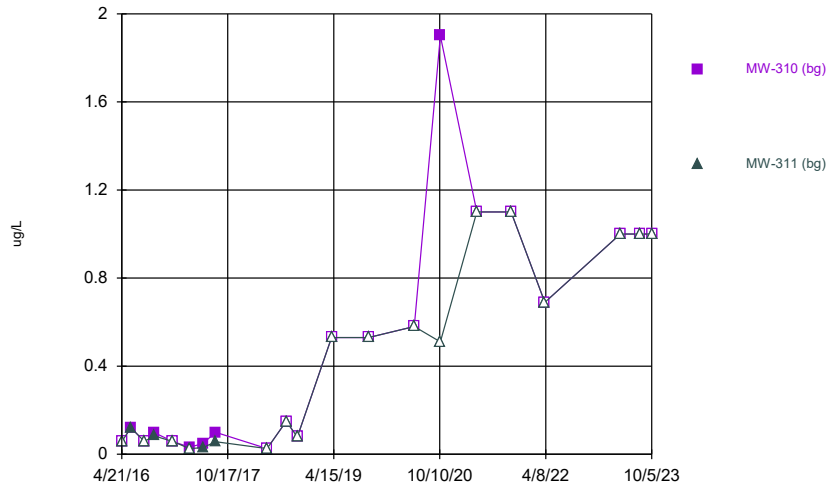
Page 6

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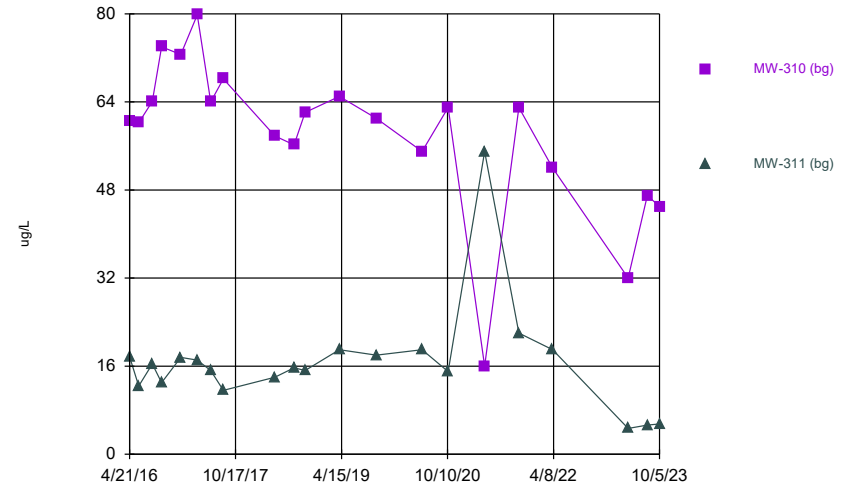
Attachment 1
Times Series Graphs

Antimony



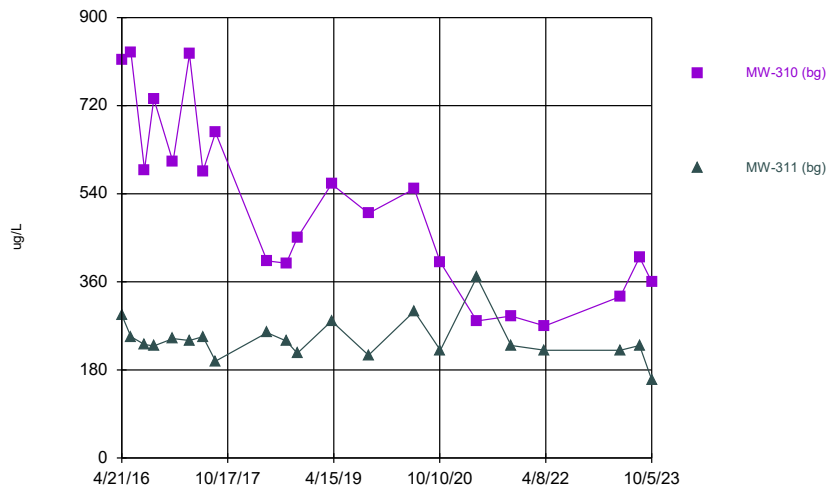
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Arsenic



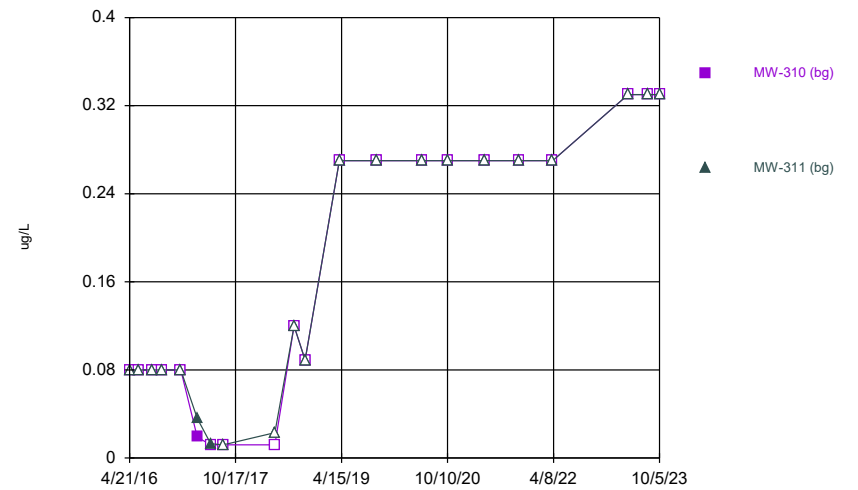
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Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Barium



Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Beryllium



Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Time Series

Constituent: Antimony (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.058 (U)	<0.058 (U)
6/7/2016	0.12 (J)	0.12 (J)
8/16/2016	<0.058 (U)	<0.058 (U)
10/3/2016	0.099 (J)	0.084 (J)
1/9/2017	<0.058 (U)	<0.058 (U)
4/4/2017	0.032 (J)	<0.026 (U)
6/12/2017	0.048 (J)	0.03 (J)
8/16/2017	0.1 (J)	0.057 (J)
5/8/2018	<0.026 (U)	<0.026 (U)
8/14/2018	<0.15 (U)	<0.15 (U)
10/10/2018	<0.078 (U)	<0.078 (U)
4/4/2019	<0.53 (U)	<0.53 (U)
10/11/2019	<0.53 (U)	<0.53 (U)
6/2/2020	<0.58 (U)	<0.58 (U)
10/14/2020	1.9	<0.51 (U)
4/19/2021	<1.1 (U)	<1.1 (U)
10/12/2021	<1.1 (U)	<1.1 (U)
4/4/2022	<0.69 (U)	<0.69 (U)
4/27/2023	<1 (U)	<1 (U)
8/3/2023	<1 (U)	<1 (U)
10/5/2023	<1 (U)	<1 (U)

Time Series

Constituent: Arsenic (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	60.6	17.7
6/7/2016	60.2	12.4
8/16/2016	64.1	16.4
10/3/2016	74	13
1/9/2017	72.6	17.6
4/4/2017	79.8	17.1
6/12/2017	64	15.2
8/16/2017	68.2	11.6
5/8/2018	57.8	14
8/14/2018	56.2	15.7
10/10/2018	62.1	15.2
4/4/2019	65	19
10/11/2019	61	18
6/2/2020	55	19
10/14/2020	63	15
4/19/2021	16 (X)	55 (X)
10/12/2021	63	22
4/4/2022	52	19
4/27/2023	32	4.7
8/3/2023	47	5.3
10/5/2023	45	5.5

Time Series

Constituent: Barium (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

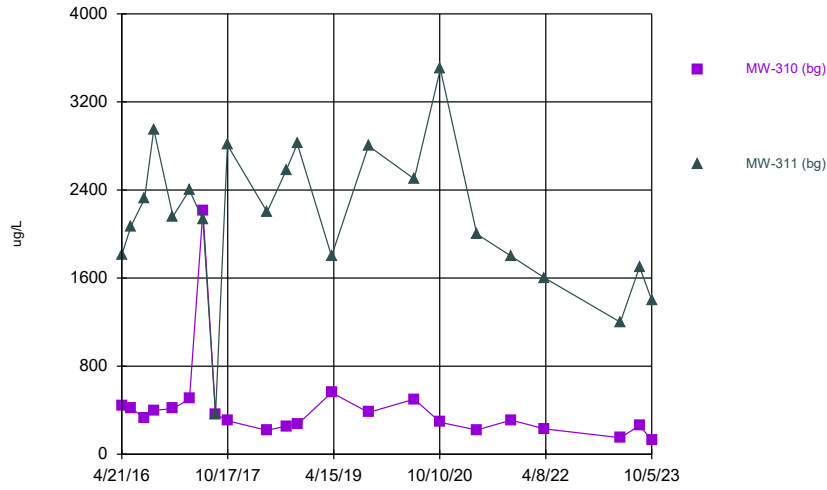
	MW-310 (bg)	MW-311 (bg)
4/21/2016	813	292
6/7/2016	829	248
8/16/2016	589	232
10/3/2016	734	229
1/9/2017	605	244
4/4/2017	825	240
6/12/2017	586	248
8/16/2017	665	198
5/8/2018	403	256
8/14/2018	398	239
10/10/2018	450	214
4/4/2019	560	280
10/11/2019	500	210
6/2/2020	550	300
10/14/2020	400	220
4/19/2021	280	370
10/12/2021	290	230
4/4/2022	270	220
4/27/2023	330	220
8/3/2023	410	230
10/5/2023	360	160

Time Series

Constituent: Beryllium (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

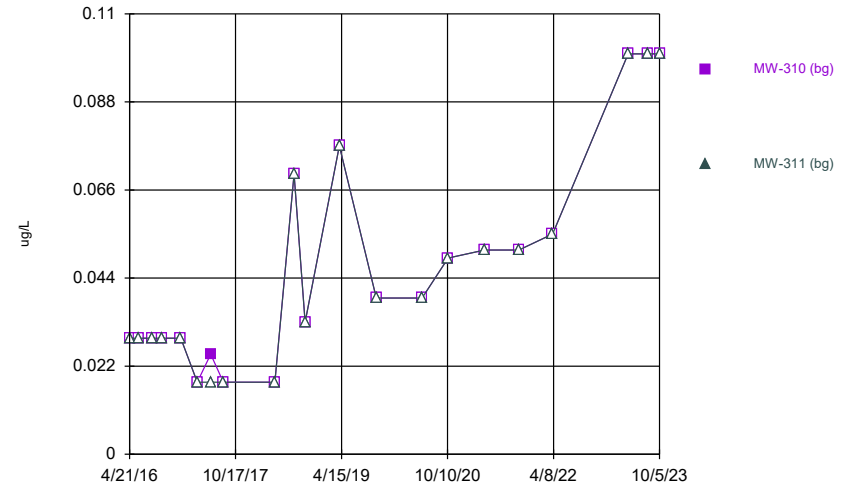
	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.08 (U)	<0.08 (U)
6/7/2016	<0.08 (U)	<0.08 (U)
8/16/2016	<0.08 (U)	<0.08 (U)
10/3/2016	<0.08 (U)	<0.08 (U)
1/9/2017	<0.08 (U)	<0.08 (U)
4/4/2017	0.019 (J)	0.036 (J)
6/12/2017	<0.012 (U)	0.013 (J)
8/16/2017	<0.012 (U)	<0.012 (U)
5/8/2018	<0.012 (U)	<0.023 (U)
8/14/2018	<0.12 (U)	<0.12 (U)
10/10/2018	<0.089 (U)	<0.089 (U)
4/4/2019	<0.27 (U)	<0.27 (U)
10/11/2019	<0.27 (U)	<0.27 (U)
6/2/2020	<0.27 (U)	<0.27 (U)
10/14/2020	<0.27 (U)	<0.27 (U)
4/19/2021	<0.27 (U)	<0.27 (U)
10/12/2021	<0.27 (U)	<0.27 (U)
4/4/2022	<0.27 (U)	<0.27 (U)
4/27/2023	<0.33 (U)	<0.33 (U)
8/3/2023	<0.33 (U)	<0.33 (U)
10/5/2023	<0.33 (U)	<0.33 (U)

Boron



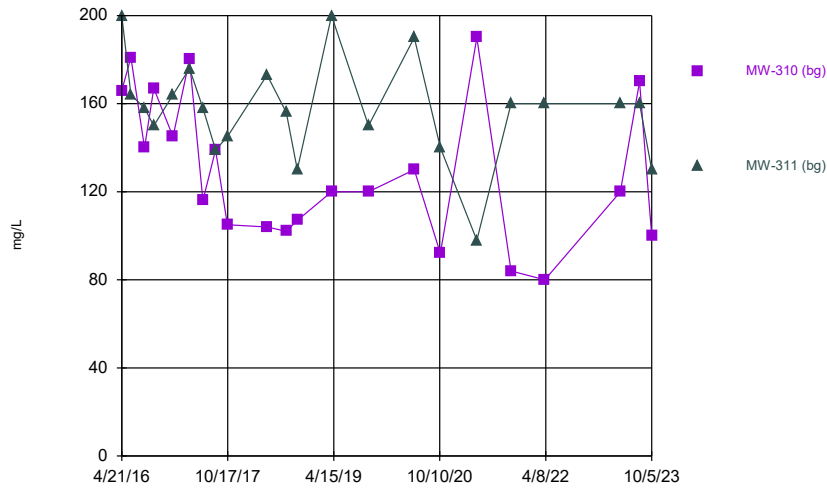
Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Cadmium



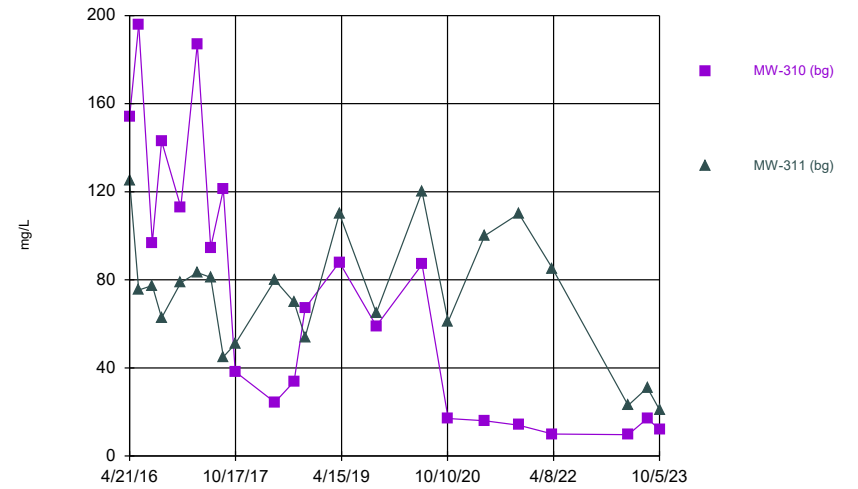
Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Calcium



Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Chloride



Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Time Series

Constituent: Boron (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	437	1810
6/7/2016	422	2070
8/16/2016	326	2320
10/3/2016	400	2950
1/9/2017	413	2160
4/4/2017	503	2400
6/12/2017	2210 (X)	2130
8/16/2017	365	360 (X)
10/16/2017	305	2810
5/8/2018	217	2200
8/14/2018	256	2580
10/10/2018	268	2820
4/4/2019	560	1800
10/11/2019	380	2800
6/2/2020	500	2500
10/14/2020	290	3500
4/19/2021	220	2000
10/12/2021	310	1800
4/4/2022	230	1600
4/27/2023	150	1200
8/3/2023	260	1700
10/5/2023	130	1400

Time Series

Constituent: Cadmium (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.029 (U)	<0.029 (U)
6/7/2016	<0.029 (U)	<0.029 (U)
8/16/2016	<0.029 (U)	<0.029 (U)
10/3/2016	<0.029 (U)	<0.029 (U)
1/9/2017	<0.029 (U)	<0.029 (U)
4/4/2017	<0.018 (U)	<0.018 (U)
6/12/2017	0.025 (J)	<0.018 (U)
8/16/2017	<0.018 (U)	<0.018 (U)
5/8/2018	<0.018 (U)	<0.018 (U)
8/14/2018	<0.07 (U)	<0.07 (U)
10/10/2018	<0.033 (U)	<0.033 (U)
4/4/2019	<0.077 (U)	<0.077 (U)
10/11/2019	<0.039 (U)	<0.039 (U)
6/2/2020	<0.039 (U)	<0.039 (U)
10/14/2020	<0.049 (U)	<0.049 (U)
4/19/2021	<0.051 (U)	<0.051 (U)
10/12/2021	<0.051 (U)	<0.051 (U)
4/4/2022	<0.055 (U)	<0.055 (U)
4/27/2023	<0.1 (U)	<0.1 (U)
8/3/2023	<0.1 (U)	<0.1 (U)
10/5/2023	<0.1 (U)	<0.1 (U)

Time Series

Constituent: Calcium (mg/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

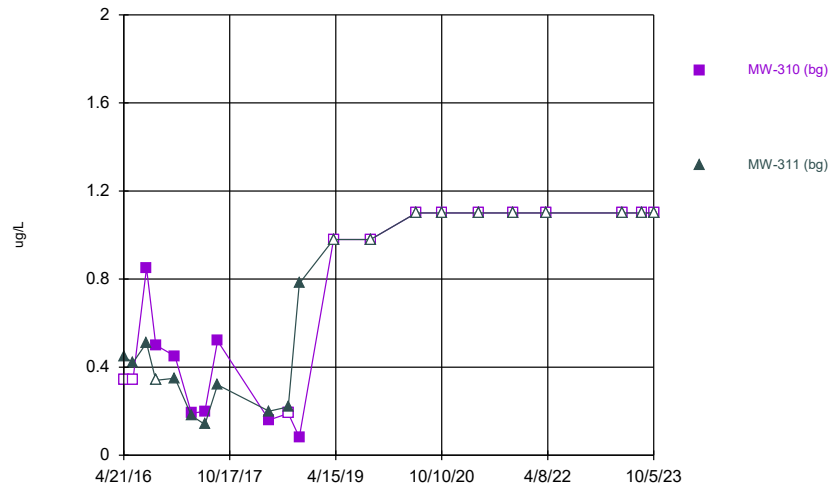
	MW-310 (bg)	MW-311 (bg)
4/21/2016	166	200
6/7/2016	181	164
8/16/2016	140	158
10/3/2016	167	150
1/9/2017	145	164
4/4/2017	180	176
6/12/2017	116	158
8/16/2017	139	139
10/16/2017	105	145
5/8/2018	104	173
8/14/2018	102	156
10/10/2018	107	130
4/4/2019	120	200
10/11/2019	120	150
6/2/2020	130	190
10/14/2020	92	140
4/19/2021	190	98
10/12/2021	84	160
4/4/2022	80	160
4/27/2023	120	160
8/3/2023	170	160
10/5/2023	100	130

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

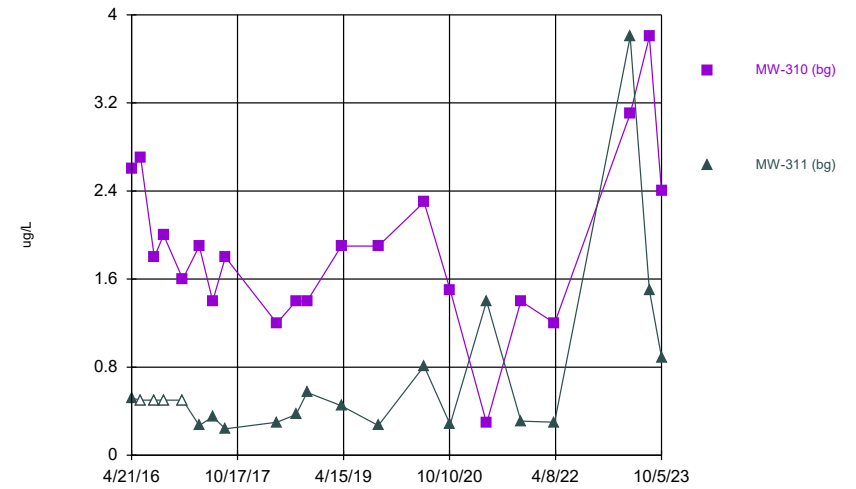
	MW-310 (bg)	MW-311 (bg)
4/21/2016	154	125
6/7/2016	196	75.4
8/16/2016	96.9	77.4
10/3/2016	143	62.7
1/9/2017	113	78.7
4/4/2017	187	83.3
6/12/2017	94.7	81.1
8/16/2017	121	45
10/16/2017	38.3	50.9
5/8/2018	24.4	79.9
8/14/2018	33.8	69.9
10/10/2018	67.1	54
4/4/2019	88	110
10/11/2019	59	65
6/2/2020	87	120
10/14/2020	17	61
4/19/2021	16	100
10/12/2021	14	110
4/4/2022	10	85
4/27/2023	9.7	23
8/3/2023	17	31
10/5/2023	12	21

Chromium



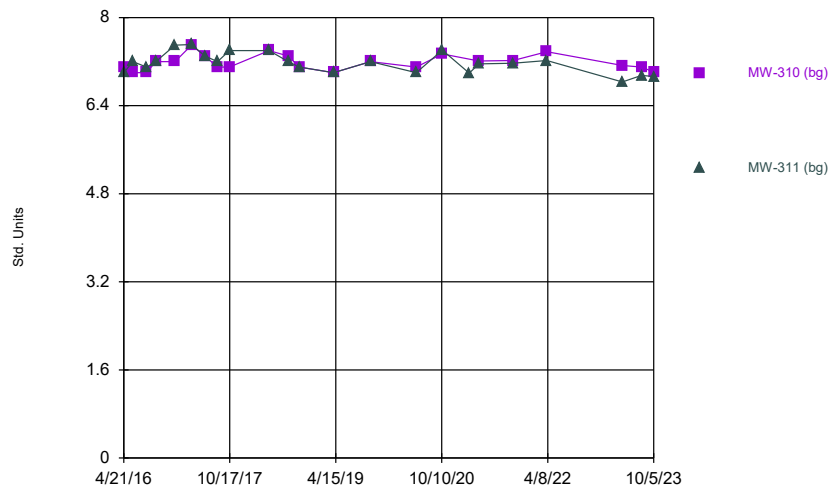
Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Cobalt



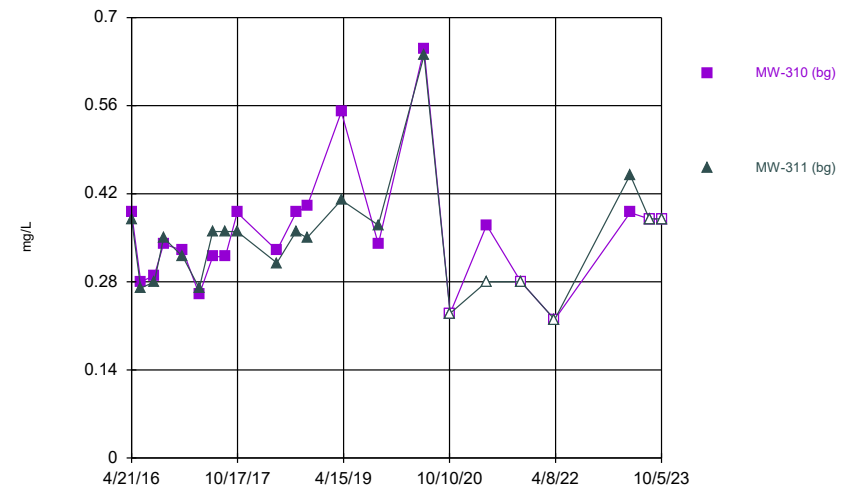
Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Field pH



Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Fluoride



Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Time Series

Constituent: Chromium (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.34 (U)	0.45 (J)
6/7/2016	<0.34 (U)	0.42 (J)
8/16/2016	0.85 (J)	0.51 (J)
10/3/2016	0.5 (J)	<0.34 (U)
1/9/2017	0.45 (J)	0.35 (J)
4/4/2017	0.19 (J)	0.18 (J)
6/12/2017	0.2 (J)	0.14 (J)
8/16/2017	0.52 (J)	0.32 (J)
5/8/2018	0.16 (J)	0.2 (J)
8/14/2018	<0.19 (U)	0.22 (J)
10/10/2018	0.082 (J)	0.78 (J)
4/4/2019	<0.98 (U)	<0.98 (U)
10/11/2019	<0.98 (U)	<0.98 (U)
6/2/2020	<1.1 (U)	<1.1 (U)
10/14/2020	<1.1 (U)	<1.1 (U)
4/19/2021	<1.1 (U)	<1.1 (U)
10/12/2021	<1.1 (U)	<1.1 (U)
4/4/2022	<1.1 (U)	<1.1 (U)
4/27/2023	<1.1 (U)	<1.1 (U)
8/3/2023	<1.1 (U)	<1.1 (U)
10/5/2023	<1.1 (U)	<1.1 (U)

Time Series

Constituent: Cobalt (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	2.6	0.52 (J)
6/7/2016	2.7	<0.5 (U)
8/16/2016	1.8	<0.5 (U)
10/3/2016	2	<0.5 (U)
1/9/2017	1.6	<0.5 (U)
4/4/2017	1.9	0.27 (J)
6/12/2017	1.4	0.35 (J)
8/16/2017	1.8	0.24 (J)
5/8/2018	1.2	0.3 (J)
8/14/2018	1.4	0.37 (J)
10/10/2018	1.4	0.57 (J)
4/4/2019	1.9	0.45 (J)
10/11/2019	1.9	0.27 (J)
6/2/2020	2.3	0.81
10/14/2020	1.5	0.28 (J)
4/19/2021	0.29 (J)	1.4
10/12/2021	1.4	0.31 (J)
4/4/2022	1.2	0.3 (J)
4/27/2023	3.1	3.8
8/3/2023	3.8	1.5
10/5/2023	2.4	0.89

Time Series

Constituent: Field pH (Std. Units) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

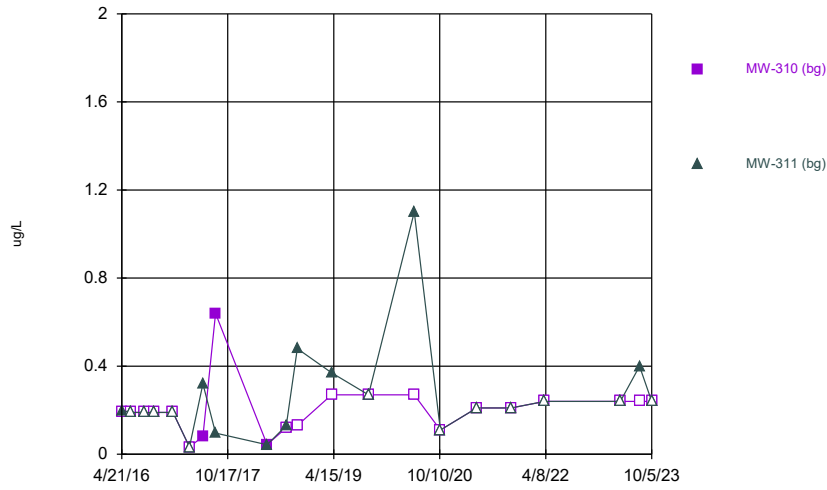
	MW-310 (bg)	MW-311 (bg)
4/21/2016	7.1	7
6/7/2016	7	7.2
8/16/2016	7	7.1
10/3/2016	7.2	7.2
1/9/2017	7.2	7.5
4/4/2017	7.5	7.51
6/12/2017	7.3	7.3
8/16/2017	7.1	7.2
10/16/2017	7.1	7.4
5/8/2018	7.4	7.4
8/14/2018	7.3	7.2
10/10/2018	7.1	7.1
4/4/2019	7	7
10/11/2019	7.2	7.2
6/2/2020	7.1	7
10/14/2020	7.34	7.41
3/1/2021		6.99
4/19/2021	7.21	7.16
10/12/2021	7.22	7.17
4/4/2022	7.38	7.22
4/27/2023	7.13	6.83
8/3/2023	7.1	6.95
10/5/2023	7.01	6.93

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

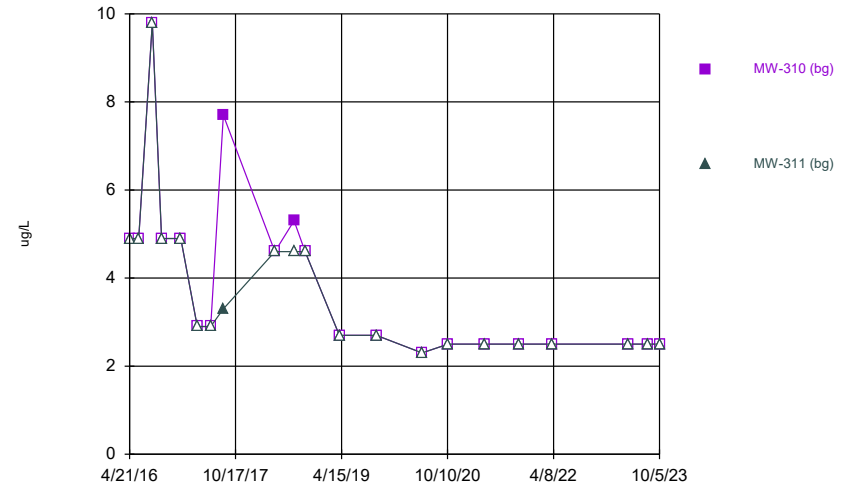
	MW-310 (bg)	MW-311 (bg)
4/21/2016	0.39	0.38
6/7/2016	0.28	0.27
8/16/2016	0.29	0.28
10/3/2016	0.34	0.35
1/9/2017	0.33	0.32
4/4/2017	0.26	0.27
6/12/2017	0.32	0.36
8/16/2017	0.32	0.36
10/16/2017	0.39	0.36
5/8/2018	0.33	0.31
8/14/2018	0.39	0.36
10/10/2018	0.4	0.35
4/4/2019	0.55	0.41 (J)
10/11/2019	0.34 (J)	0.37 (J)
6/2/2020	0.65	0.64
10/14/2020	<0.23 (U)	<0.23 (U)
4/19/2021	0.37 (J)	<0.28 (U)
10/12/2021	<0.28 (U)	<0.28 (U)
4/4/2022	<0.22 (U)	<0.22 (U)
4/27/2023	0.39 (J)	0.45 (J)
8/3/2023	<0.38 (U)	<0.38 (U)
10/5/2023	<0.38 (U)	<0.38 (U)

Lead



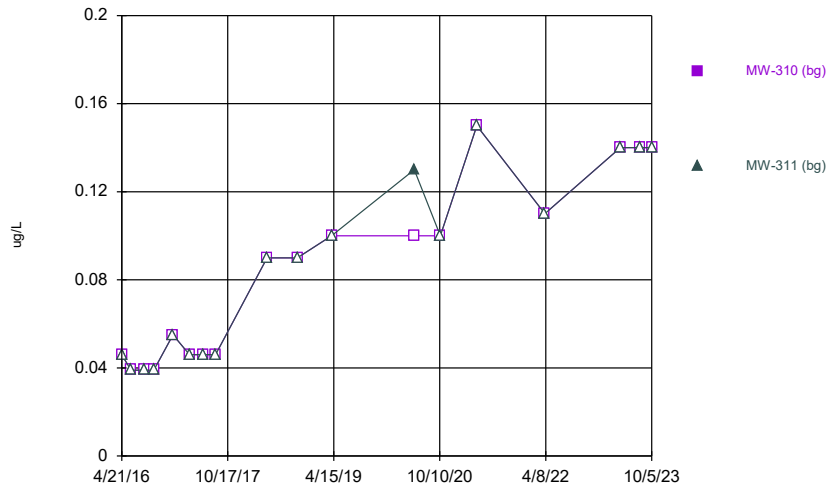
Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Lithium



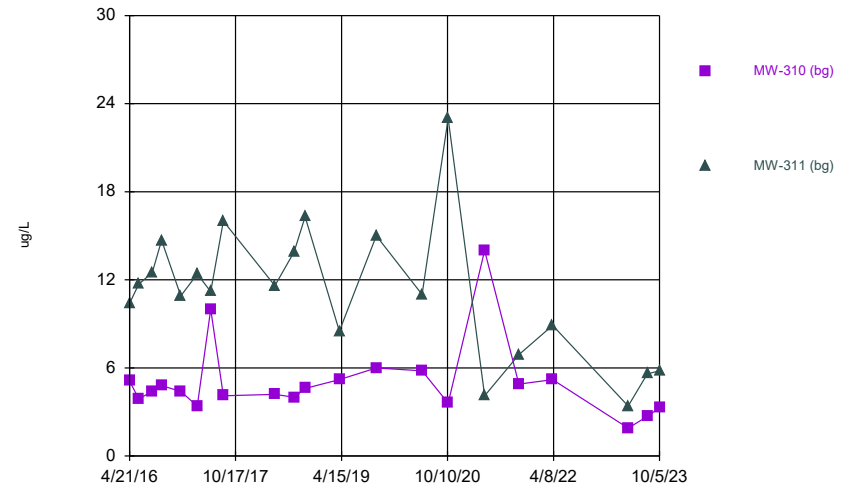
Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mercury



Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Molybdenum



Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Time Series

Constituent: Lead (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.19 (U)	0.2 (J)
6/7/2016	<0.19 (U)	<0.19 (U)
8/16/2016	<0.19 (U)	<0.19 (U)
10/3/2016	<0.19 (U)	<0.19 (U)
1/9/2017	<0.19 (U)	<0.19 (U)
4/4/2017	<0.033 (U)	<0.033 (U)
6/12/2017	0.081 (J)	0.32 (J)
8/16/2017	0.64 (J)	0.096 (J)
5/8/2018	0.044 (J)	0.043 (J)
8/14/2018	<0.12 (U)	0.13 (J)
10/10/2018	<0.13 (U)	0.48 (J)
4/4/2019	<0.27 (U)	0.37 (J)
10/11/2019	<0.27 (U)	<0.27 (U)
6/2/2020	<0.27 (U)	1.1
10/14/2020	<0.11 (U)	<0.11 (U)
4/19/2021	<0.21 (U)	<0.21 (U)
10/12/2021	<0.21 (U)	<0.21 (U)
4/4/2022	<0.24 (U)	<0.24 (U)
4/27/2023	<0.24 (U)	<0.24 (U)
8/3/2023	<0.24 (U)	0.4 (J)
10/5/2023	<0.24 (U)	<0.24 (U)

Time Series

Constituent: Lithium (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<4.9 (U)	<4.9 (U)
6/7/2016	<4.9 (U)	<4.9 (U)
8/16/2016	<9.8 (U)	<9.8 (U)
10/3/2016	<4.9 (U)	<4.9 (U)
1/9/2017	<4.9 (U)	<4.9 (U)
4/4/2017	<2.9 (U)	<2.9 (U)
6/12/2017	<2.9 (U)	<2.9 (U)
8/16/2017	7.7 (J)	3.3 (J)
5/8/2018	<4.6 (U)	<4.6 (U)
8/14/2018	5.3 (J)	<4.6 (U)
10/10/2018	<4.6 (U)	<4.6 (U)
4/4/2019	<2.7 (U)	<2.7 (U)
10/11/2019	<2.7 (U)	<2.7 (U)
6/2/2020	<2.3 (U)	<2.3 (U)
10/14/2020	<2.5 (U)	<2.5 (U)
4/19/2021	<2.5 (U)	<2.5 (U)
10/12/2021	<2.5 (U)	<2.5 (U)
4/4/2022	<2.5 (U)	<2.5 (U)
4/27/2023	<2.5 (U)	<2.5 (U)
8/3/2023	<2.5 (U)	<2.5 (U)
10/5/2023	<2.5 (U)	<2.5 (U)

Time Series

Constituent: Mercury (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

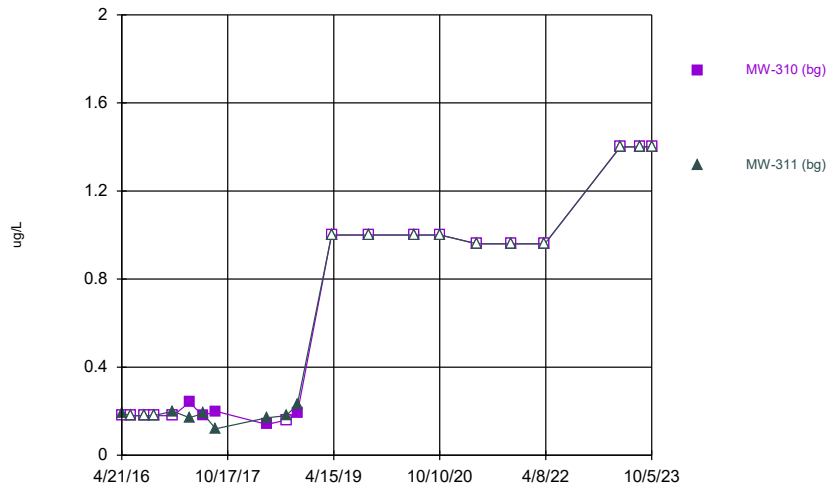
	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.046 (U)	<0.046 (U)
6/7/2016	<0.039 (U)	<0.039 (U)
8/16/2016	<0.039 (U)	<0.039 (U)
10/3/2016	<0.039 (U)	<0.039 (U)
1/9/2017	<0.055 (U)	<0.055 (U)
4/4/2017	<0.046 (U)	<0.046 (U)
6/12/2017	<0.046 (U)	<0.046 (U)
8/16/2017	<0.046 (U)	<0.046 (U)
5/8/2018	<0.09 (U)	<0.09 (U)
10/10/2018	<0.09 (U)	<0.09 (U)
4/4/2019	<0.1 (U)	<0.1 (U)
6/2/2020	<0.1 (U)	0.13 (J)
10/14/2020	<0.1 (U)	<0.1 (U)
4/19/2021	<0.15 (U)	<0.15 (U)
4/4/2022	<0.11 (U)	<0.11 (U)
4/27/2023	<0.14 (U)	<0.14 (U)
8/3/2023	<0.14 (U)	<0.14 (U)
10/5/2023	<0.14 (U)	<0.14 (U)

Time Series

Constituent: Molybdenum (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

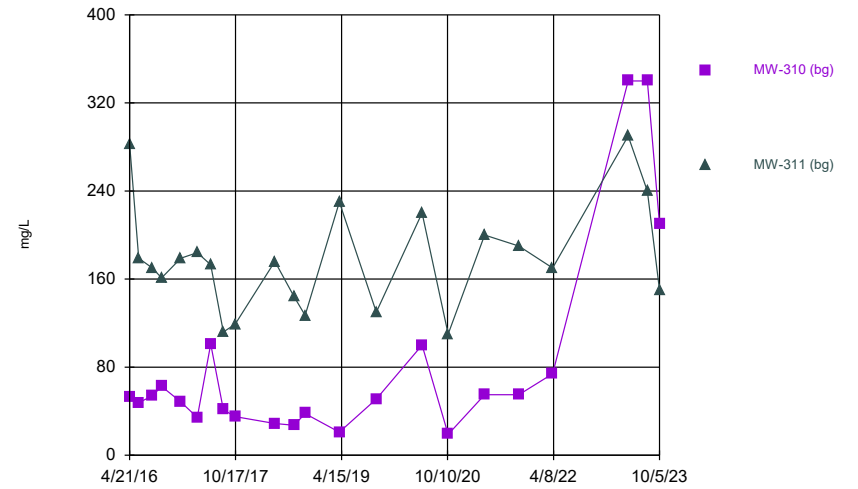
	MW-310 (bg)	MW-311 (bg)
4/21/2016	5.1	10.4
6/7/2016	3.9	11.7
8/16/2016	4.4	12.5
10/3/2016	4.8	14.7
1/9/2017	4.4	10.9
4/4/2017	3.4	12.4
6/12/2017	10 (X)	11.2
8/16/2017	4.1	16
5/8/2018	4.2	11.6
8/14/2018	4	13.9
10/10/2018	4.6	16.3
4/4/2019	5.2	8.5
10/11/2019	6	15
6/2/2020	5.8	11
10/14/2020	3.6	23
4/19/2021	14 (X)	4.1
10/12/2021	4.9	6.9
4/4/2022	5.2	8.9
4/27/2023	1.9 (J)	3.4
8/3/2023	2.7	5.6
10/5/2023	3.3	5.8

Selenium



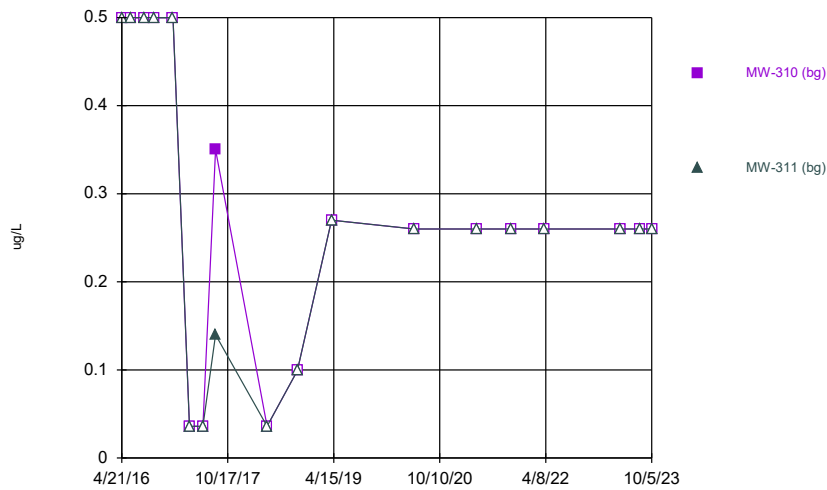
Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Sulfate



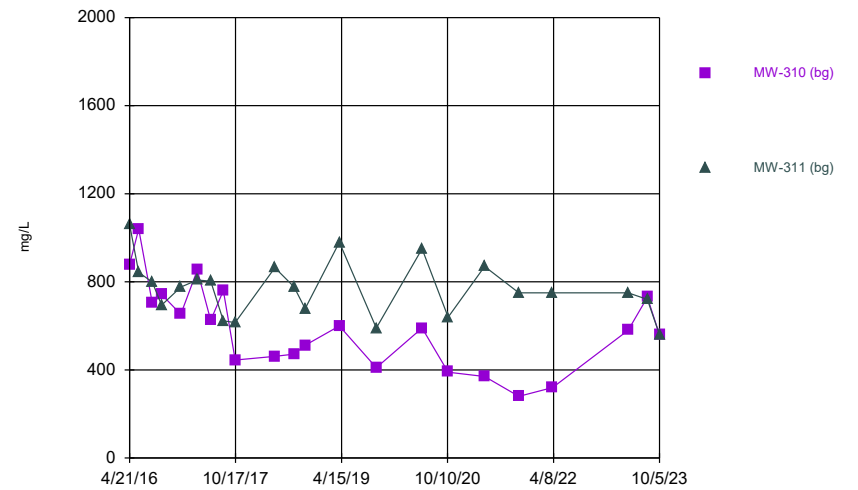
Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Thallium



Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Total Dissolved Solids



Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Time Series

Constituent: Selenium (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.18 (U)	0.19 (J)
6/7/2016	<0.18 (U)	<0.18 (U)
8/16/2016	<0.18 (U)	<0.18 (U)
10/3/2016	<0.18 (U)	<0.18 (U)
1/9/2017	<0.18 (U)	0.2 (J)
4/4/2017	0.24 (J)	0.17 (J)
6/12/2017	0.18 (J)	0.19 (J)
8/16/2017	0.2 (J)	0.12 (J)
5/8/2018	0.14 (J)	0.17 (J)
8/14/2018	<0.16 (U)	0.18 (J)
10/10/2018	0.19 (J)	0.23 (J)
4/4/2019	<1 (U)	<1 (U)
10/11/2019	<1 (U)	<1 (U)
6/2/2020	<1 (U)	<1 (U)
10/14/2020	<1 (U)	<1 (U)
4/19/2021	<0.96 (U)	<0.96 (U)
10/12/2021	<0.96 (U)	<0.96 (U)
4/4/2022	<0.96 (U)	<0.96 (U)
4/27/2023	<1.4 (U)	<1.4 (U)
8/3/2023	<1.4 (U)	<1.4 (U)
10/5/2023	<1.4 (U)	<1.4 (U)

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	53.1	283
6/7/2016	47.7	179
8/16/2016	54	170
10/3/2016	62.6	161
1/9/2017	48.5	179
4/4/2017	34.3	184
6/12/2017	101	173
8/16/2017	41.3	112
10/16/2017	35.1	119
5/8/2018	28.8	176
8/14/2018	27.2	144
10/10/2018	37.9	127
4/4/2019	21	230
10/11/2019	51	130
6/2/2020	100	220
10/14/2020	19	110
4/19/2021	55	200
10/12/2021	55	190
4/4/2022	74	170
4/27/2023	340	290
8/3/2023	340	240
10/5/2023	210	150

Time Series

Constituent: Thallium (ug/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

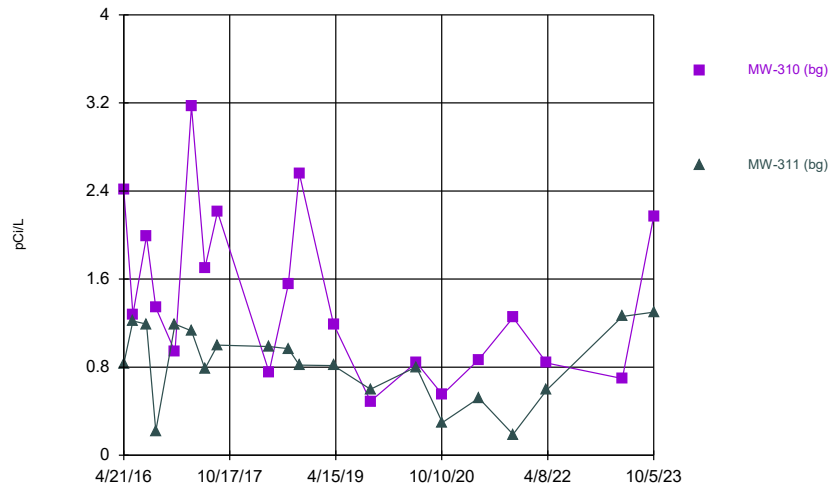
	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.5 (U)	<0.5 (U)
6/7/2016	<0.5 (U)	<0.5 (U)
8/16/2016	<0.5 (U)	<0.5 (U)
10/3/2016	<0.5 (U)	<0.5 (U)
1/9/2017	<0.5 (U)	<0.5 (U)
4/4/2017	<0.036 (U)	<0.036 (U)
6/12/2017	<0.036 (U)	<0.036 (U)
8/16/2017	0.35 (J)	0.14 (J)
5/8/2018	<0.036 (U)	<0.036 (U)
10/10/2018	<0.099 (U)	<0.099 (U)
4/4/2019	<0.27 (U)	<0.27 (U)
6/2/2020	<0.26 (U)	<0.26 (U)
4/19/2021	<0.26 (U)	<0.26 (U)
10/12/2021	<0.26 (U)	<0.26 (U)
4/4/2022	<0.26 (U)	<0.26 (U)
4/27/2023	<0.26 (U)	<0.26 (U)
8/3/2023	<0.26 (U)	<0.26 (U)
10/5/2023	<0.26 (U)	<0.26 (U)

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	879	1060
6/7/2016	1040	843
8/16/2016	703	799
10/3/2016	743	694
1/9/2017	653	776
4/4/2017	853	808
6/12/2017	625	803
8/16/2017	760	623
10/16/2017	445	615
5/8/2018	462	864
8/14/2018	472	777
10/10/2018	512	678
4/4/2019	600	980
10/11/2019	410	590
6/2/2020	590	950
10/14/2020	390	640
4/19/2021	370	870
10/12/2021	280	750
4/4/2022	320	750
4/27/2023	580	750
8/3/2023	730	720
10/5/2023	560	560

Total Radium



Time Series Analysis Run 1/26/2024 1:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Time Series

Constituent: Total Radium (pCi/L) Analysis Run 1/26/2024 1:55 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	2.41	0.831
6/7/2016	1.28	1.22
8/16/2016	1.99	1.19
10/3/2016	1.34	0.22
1/9/2017	0.941	1.19
4/4/2017	3.17	1.13
6/12/2017	1.7	0.785
8/16/2017	2.21	1
5/8/2018	0.755	0.987
8/14/2018	1.55	0.969
10/10/2018	2.56	0.819
4/4/2019	1.19	0.815
10/11/2019	0.49	0.599
6/2/2020	0.844	0.802
10/14/2020	0.552	0.297
4/19/2021	0.869	0.52
10/12/2021	1.25	0.189
4/4/2022	0.838	0.593
4/27/2023	0.696	1.26
10/5/2023	2.17	1.3

Attachment 2

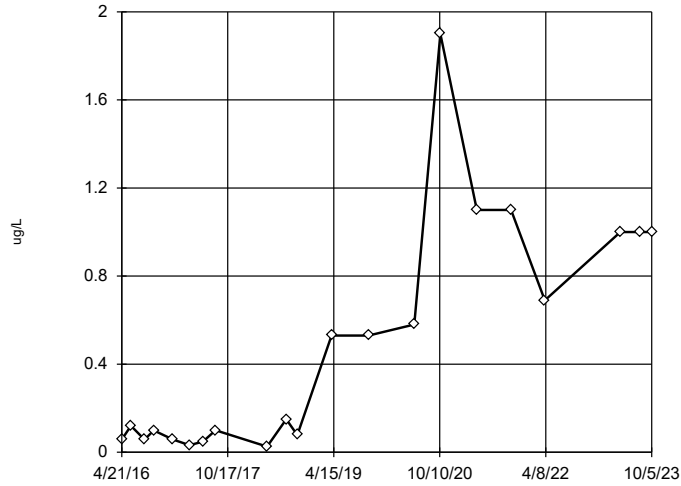
Outlier Analysis

Outlier Analysis

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 1/26/2024, 1:58 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Antimony (ug/L)	MW-310 (bg)	No	n/a	n/a	EPA 1989	0.05	21	0.4884	0.523	ln(x)	ShapiroWilk
Antimony (ug/L)	MW-311 (bg)	No	n/a	n/a	NP (nrm)	NaN	21	0.4183	0.415	unknown	ShapiroWilk
Arsenic (ug/L)	MW-310 (bg)	Yes	16	4/19/2021	Dixon`s	0.05	21	58.03	14.21	normal	ShapiroWilk
Arsenic (ug/L)	MW-311 (bg)	No	n/a	n/a	NP (nrm)	NaN	21	16.59	9.969	unknown	ShapiroWilk
Barium (ug/L)	MW-310 (bg)	No	n/a	n/a	EPA 1989	0.05	21	516.5	180.9	normal	ShapiroWilk
Barium (ug/L)	MW-311 (bg)	Yes	370	4/19/2021	Dixon`s	0.05	21	241.9	42.69	normal	ShapiroWilk
Beryllium (ug/L)	MW-310 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	21	0.1688	0.1212	unknown	ShapiroWilk
Beryllium (ug/L)	MW-311 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	21	0.1701	0.1195	unknown	ShapiroWilk
Boron (ug/L)	MW-310 (bg)	Yes	2210	6/12/2017	Dixon`s	0.05	22	416	416.5	normal	ShapiroWilk
Boron (ug/L)	MW-311 (bg)	No	n/a	n/a	Dixon`s	0.05	22	2132	680.6	normal	ShapiroWilk
Cadmium (ug/L)	MW-310 (bg)	No	n/a	n/a	EPA 1989	0.05	21	0.04705	0.0273	ln(x)	ShapiroWilk
Cadmium (ug/L)	MW-311 (bg)	No	n/a	n/a	EPA 1989	0.05	21	0.04671	0.02762	ln(x)	ShapiroWilk
Calcium (mg/L)	MW-310 (bg)	No	n/a	n/a	EPA 1989	0.05	22	129.9	33.41	normal	ShapiroWilk
Calcium (mg/L)	MW-311 (bg)	No	n/a	n/a	Dixon`s	0.05	22	157.3	23.23	normal	ShapiroWilk
Chloride (mg/L)	MW-310 (bg)	No	n/a	n/a	EPA 1989	0.05	22	72.68	59.75	normal	ShapiroWilk
Chloride (mg/L)	MW-311 (bg)	No	n/a	n/a	EPA 1989	0.05	22	73.15	29.05	normal	ShapiroWilk
Chromium (ug/L)	MW-310 (bg)	No	n/a	n/a	NP (nrm)	NaN	21	0.6944	0.406	unknown	ShapiroWilk
Chromium (ug/L)	MW-311 (bg)	No	n/a	n/a	NP (nrm)	NaN	21	0.6986	0.3925	unknown	ShapiroWilk
Cobalt (ug/L)	MW-310 (bg)	No	n/a	n/a	Dixon`s	0.05	21	1.885	0.7562	normal	ShapiroWilk
Cobalt (ug/L)	MW-311 (bg)	No	n/a	n/a	Dixon`s	0.05	21	0.6967	0.7912	ln(x)	ShapiroWilk
Field pH (Std. Units)	MW-310 (bg)	No	n/a	n/a	EPA 1989	0.05	22	7.181	0.1407	normal	ShapiroWilk
Field pH (Std. Units)	MW-311 (bg)	No	n/a	n/a	EPA 1989	0.05	23	7.173	0.1861	normal	ShapiroWilk
Fluoride (mg/L)	MW-310 (bg)	No	n/a	n/a	EPA 1989	0.05	22	0.3559	0.09659	ln(x)	ShapiroWilk
Fluoride (mg/L)	MW-311 (bg)	Yes	0.64	6/2/2020	Dixon`s	0.05	22	0.3459	0.08787	normal	ShapiroWilk
Lead (ug/L)	MW-310 (bg)	No	n/a	n/a	NP (nrm)	NaN	21	0.2047	0.1226	unknown	ShapiroWilk
Lead (ug/L)	MW-311 (bg)	No	n/a	n/a	EPA 1989	0.05	21	0.2596	0.2218	ln(x)	ShapiroWilk
Lithium (ug/L)	MW-310 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	21	3.933	1.966	unknown	ShapiroWilk
Lithium (ug/L)	MW-311 (bg)	No	n/a	n/a	NP (nrm)	NaN	21	3.69	1.745	unknown	ShapiroWilk
Mercury (ug/L)	MW-310 (bg)	No	n/a	n/a	EPA 1989	0.05	18	0.08422	0.04056	normal	ShapiroWilk
Mercury (ug/L)	MW-311 (bg)	No	n/a	n/a	NP (nrm)	NaN	18	0.08589	0.04185	unknown	ShapiroWilk
Molybdenum (ug/L)	MW-310 (bg)	Yes	14	4/19/2021	Dixon`s	0.05	21	5.024	2.594	ln(x)	ShapiroWilk
Molybdenum (ug/L)	MW-311 (bg)	No	n/a	n/a	EPA 1989	0.05	21	11.13	4.633	normal	ShapiroWilk
Selenium (ug/L)	MW-310 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	21	0.6233	0.4929	unknown	ShapiroWilk
Selenium (ug/L)	MW-311 (bg)	n/a	n/a	n/a	NP (nrm)	NaN	21	0.6224	0.4938	unknown	ShapiroWilk
Sulfate (mg/L)	MW-310 (bg)	No	n/a	n/a	EPA 1989	0.05	22	83.48	92.2	ln(x)	ShapiroWilk
Sulfate (mg/L)	MW-311 (bg)	No	n/a	n/a	EPA 1989	0.05	22	179	49.89	normal	ShapiroWilk
Thallium (ug/L)	MW-310 (bg)	No	n/a	n/a	NP (nrm)	NaN	18	0.2859	0.1646	unknown	ShapiroWilk
Thallium (ug/L)	MW-311 (bg)	No	n/a	n/a	NP (nrm)	NaN	18	0.2743	0.1672	unknown	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-310 (bg)	No	n/a	n/a	EPA 1989	0.05	22	589.9	194.4	normal	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-311 (bg)	No	n/a	n/a	EPA 1989	0.05	22	768.2	128.2	normal	ShapiroWilk
Total Radium (pCi/L)	MW-310 (bg)	No	n/a	n/a	EPA 1989	0.05	20	1.44	0.7552	normal	ShapiroWilk
Total Radium (pCi/L)	MW-311 (bg)	No	n/a	n/a	EPA 1989	0.05	20	0.8358	0.3445	normal	ShapiroWilk

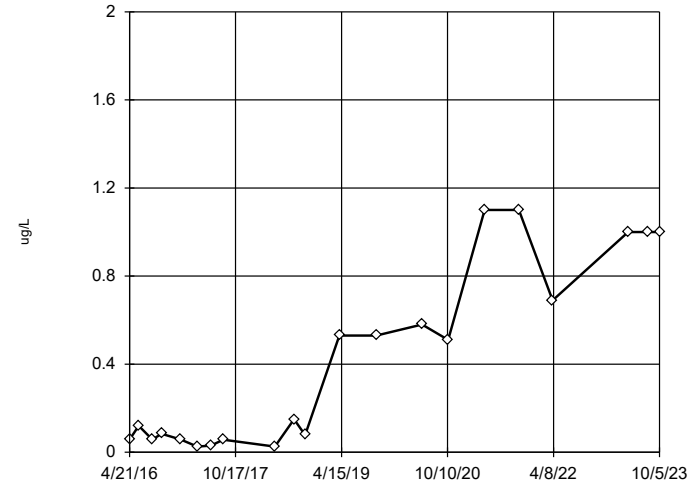
Antimony MW-310 (bg)



n = 21
 Dixon's will not be run.
 No suspect values identified or unable to establish suspect values.
 Mean 0.4894, std. dev. 0.523, critical Tr 2.58
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.8958
 Critical = 0.873 (after natural log transformation)
 The distribution was found to be log-normal.

EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:55 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

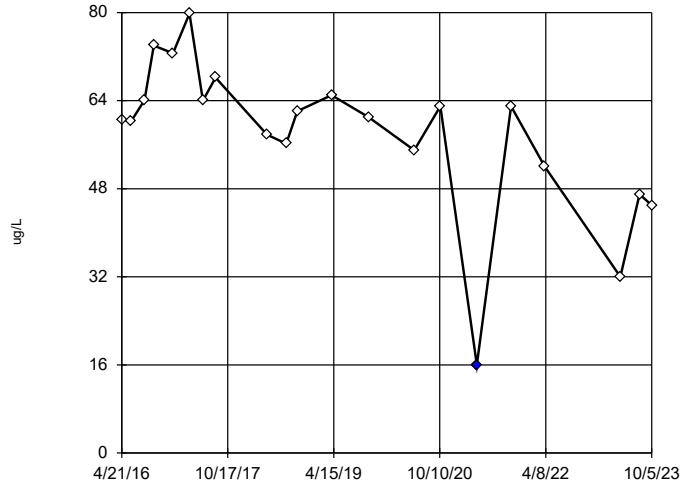
Antimony MW-311 (bg)



n = 21
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 2440, low cutoff = 0.00001974, based on IQR multiplier of 3.

Tukey's Outlier Screening Analysis Run 1/26/2024 1:55 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

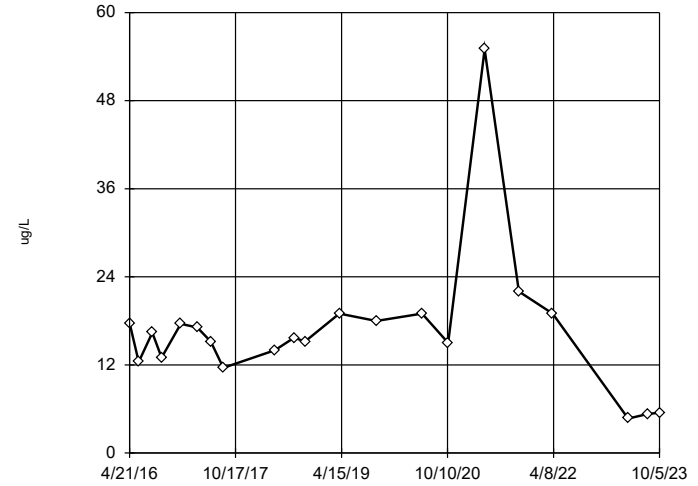
Arsenic MW-310 (bg)



n = 21
 Statistical outlier is drawn as solid.
 Testing for 2 low outliers.
 Mean = 58.03.
 Std. Dev. = 14.21.
 32: c = 0.3695
 tab1 = 0.44.
 Alpha = 0.05.
 16 (X): c = 0.5124
 tab1 = 0.44.
 Alpha = 0.05.
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.9518
 Critical = 0.868
 The distribution, after removal of suspect value, was found to be normally distributed.

Dixon's Outlier Test Analysis Run 1/26/2024 1:55 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Arsenic MW-311 (bg)



EPA 1989 Outlier Screening

Constituent: Antimony (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	<0.058 (U)
6/7/2016	0.12 (J)
8/16/2016	<0.058 (U)
10/3/2016	0.099 (J)
1/9/2017	<0.058 (U)
4/4/2017	0.032 (J)
6/12/2017	0.048 (J)
8/16/2017	0.1 (J)
5/8/2018	<0.026 (U)
8/14/2018	<0.15 (U)
10/10/2018	<0.078 (U)
4/4/2019	<0.53 (U)
10/11/2019	<0.53 (U)
6/2/2020	<0.58 (U)
10/14/2020	1.9
4/19/2021	<1.1 (U)
10/12/2021	<1.1 (U)
4/4/2022	<0.69 (U)
4/27/2023	<1 (U)
8/3/2023	<1 (U)
10/5/2023	<1 (U)

Tukey's Outlier Screening

Constituent: Antimony (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	<0.058 (U)
6/7/2016	0.12 (J)
8/16/2016	<0.058 (U)
10/3/2016	0.084 (J)
1/9/2017	<0.058 (U)
4/4/2017	<0.026 (U)
6/12/2017	0.03 (J)
8/16/2017	0.057 (J)
5/8/2018	<0.026 (U)
8/14/2018	<0.15 (U)
10/10/2018	<0.078 (U)
4/4/2019	<0.53 (U)
10/11/2019	<0.53 (U)
6/2/2020	<0.58 (U)
10/14/2020	<0.51 (U)
4/19/2021	<1.1 (U)
10/12/2021	<1.1 (U)
4/4/2022	<0.69 (U)
4/27/2023	<1 (U)
8/3/2023	<1 (U)
10/5/2023	<1 (U)

Dixon's Outlier Test

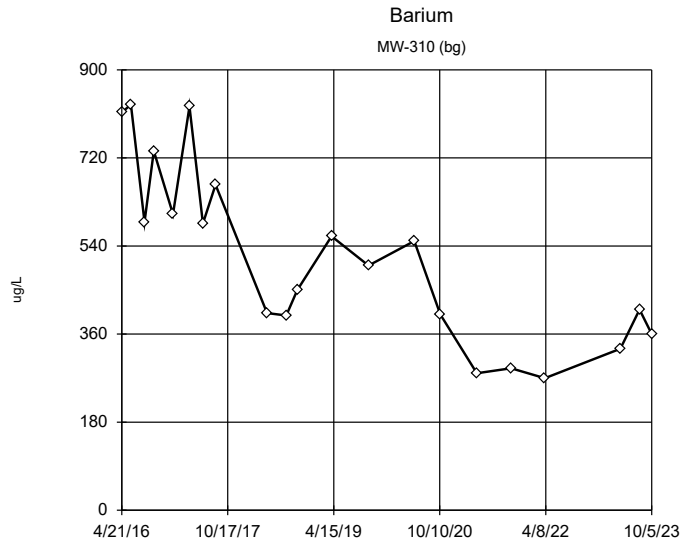
Constituent: Arsenic (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	60.6
6/7/2016	60.2
8/16/2016	64.1
10/3/2016	74
1/9/2017	72.6
4/4/2017	79.8
6/12/2017	64
8/16/2017	68.2
5/8/2018	57.8
8/14/2018	56.2
10/10/2018	62.1
4/4/2019	65
10/11/2019	61
6/2/2020	55
10/14/2020	63
4/19/2021	16 (XO)
10/12/2021	63
4/4/2022	52
4/27/2023	32
8/3/2023	47
10/5/2023	45

Tukey's Outlier Screening

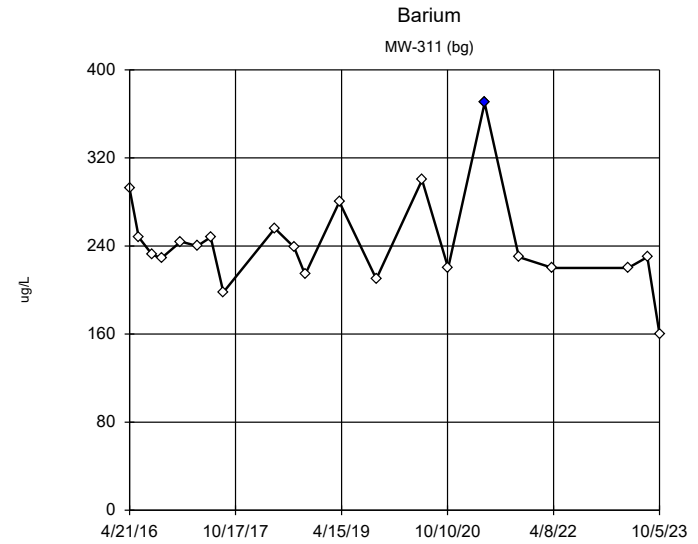
Constituent: Arsenic (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	17.7
6/7/2016	12.4
8/16/2016	16.4
10/3/2016	13
1/9/2017	17.6
4/4/2017	17.1
6/12/2017	15.2
8/16/2017	11.6
5/8/2018	14
8/14/2018	15.7
10/10/2018	15.2
4/4/2019	19
10/11/2019	18
6/2/2020	19
10/14/2020	15
4/19/2021	55 (X)
10/12/2021	22
4/4/2022	19
4/27/2023	4.7
8/3/2023	5.3
10/5/2023	5.5



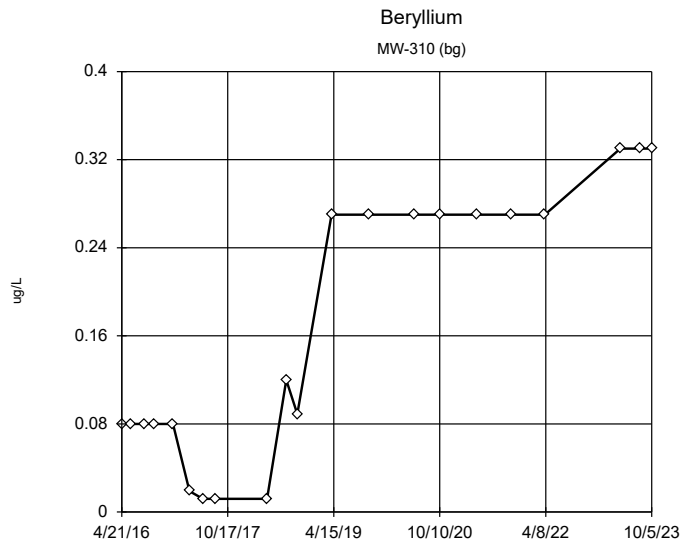
n = 21
 Dixon's will not be run.
 No suspect values identified or unable to establish suspect values.
 Mean 516.5, std. dev. 180.9, critical Tn 2.58
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.9324
 Critical = 0.873
 The distribution was found to be normally distributed.

EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:55 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



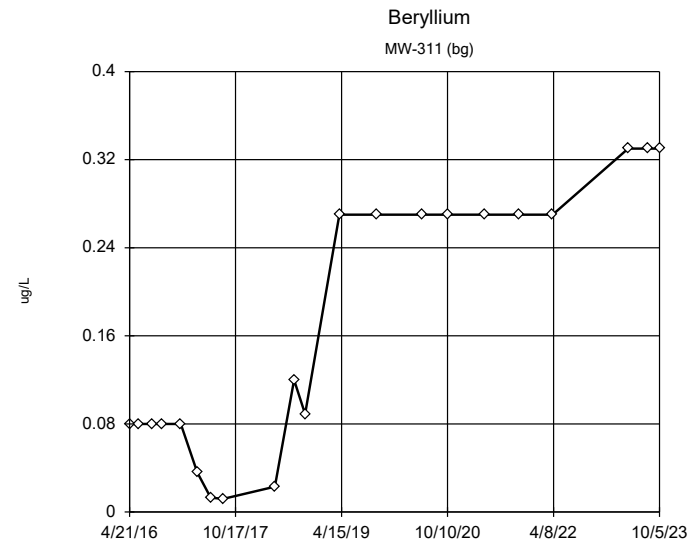
n = 21
 Statistical outlier is drawn as solid.
 Testing for 1 high and 1 low outliers.
 Mean = 241.9
 Std. Dev. = 42.69
 370: c = 0.4875
 tab1 = 0.44
 160: c = 0.3788
 tab1 = 0.44
 Alpha = 0.05.
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.9199
 Critical = 0.863
 The distribution, after removal of suspect value, was found to be normally distributed.

Dixon's Outlier Test Analysis Run 1/26/2024 1:55 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



n = 21
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because both the lower and upper quartiles represent reporting limits.

Tukey's Outlier Screening Analysis Run 1/26/2024 1:55 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



n = 21
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were cube root transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because both the lower and upper quartiles represent reporting limits.

Tukey's Outlier Screening Analysis Run 1/26/2024 1:55 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

EPA 1989 Outlier Screening

Constituent: Barium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	813
6/7/2016	829
8/16/2016	589
10/3/2016	734
1/9/2017	605
4/4/2017	825
6/12/2017	586
8/16/2017	665
5/8/2018	403
8/14/2018	398
10/10/2018	450
4/4/2019	560
10/11/2019	500
6/2/2020	550
10/14/2020	400
4/19/2021	280
10/12/2021	290
4/4/2022	270
4/27/2023	330
8/3/2023	410
10/5/2023	360

Dixon's Outlier Test

Constituent: Barium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	292
6/7/2016	248
8/16/2016	232
10/3/2016	229
1/9/2017	244
4/4/2017	240
6/12/2017	248
8/16/2017	198
5/8/2018	256
8/14/2018	239
10/10/2018	214
4/4/2019	280
10/11/2019	210
6/2/2020	300
10/14/2020	220
4/19/2021	370 (O)
10/12/2021	230
4/4/2022	220
4/27/2023	220
8/3/2023	230
10/5/2023	160

Tukey's Outlier Screening

Constituent: Beryllium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

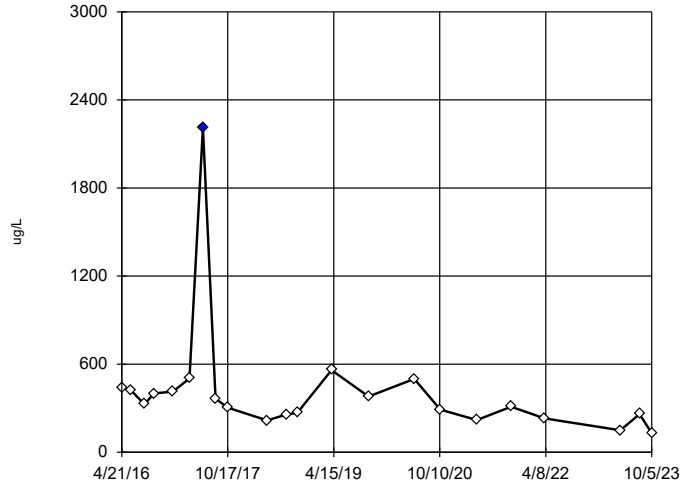
	MW-310 (bg)
4/21/2016	<0.08 (U)
6/7/2016	<0.08 (U)
8/16/2016	<0.08 (U)
10/3/2016	<0.08 (U)
1/9/2017	<0.08 (U)
4/4/2017	0.019 (J)
6/12/2017	<0.012 (U)
8/16/2017	<0.012 (U)
5/8/2018	<0.012 (U)
8/14/2018	<0.12 (U)
10/10/2018	<0.089 (U)
4/4/2019	<0.27 (U)
10/11/2019	<0.27 (U)
6/2/2020	<0.27 (U)
10/14/2020	<0.27 (U)
4/19/2021	<0.27 (U)
10/12/2021	<0.27 (U)
4/4/2022	<0.27 (U)
4/27/2023	<0.33 (U)
8/3/2023	<0.33 (U)
10/5/2023	<0.33 (U)

Tukey's Outlier Screening

Constituent: Beryllium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	<0.08 (U)
6/7/2016	<0.08 (U)
8/16/2016	<0.08 (U)
10/3/2016	<0.08 (U)
1/9/2017	<0.08 (U)
4/4/2017	0.036 (J)
6/12/2017	0.013 (J)
8/16/2017	<0.012 (U)
5/8/2018	<0.023 (U)
8/14/2018	<0.12 (U)
10/10/2018	<0.089 (U)
4/4/2019	<0.27 (U)
10/11/2019	<0.27 (U)
6/2/2020	<0.27 (U)
10/14/2020	<0.27 (U)
4/19/2021	<0.27 (U)
10/12/2021	<0.27 (U)
4/4/2022	<0.27 (U)
4/27/2023	<0.33 (U)
8/3/2023	<0.33 (U)
10/5/2023	<0.33 (U)

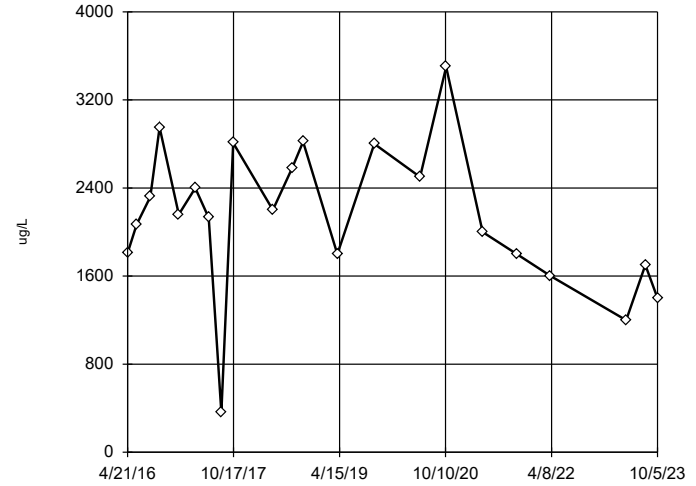
Boron MW-310 (bg)



n = 22
 Statistical outlier is drawn as solid.
 Testing for 1 high outlier.
 Mean = 416.
 Std. Dev. = 416.5
 2210 (X): c = 0.8565
 tab1 = 0.43.
 Alpha = 0.05.
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.9782
 Critical = 0.873
 The distribution, after removal of suspect value, was found to be normally distributed.

Dixon's Outlier Test Analysis Run 1/26/2024 1:55 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

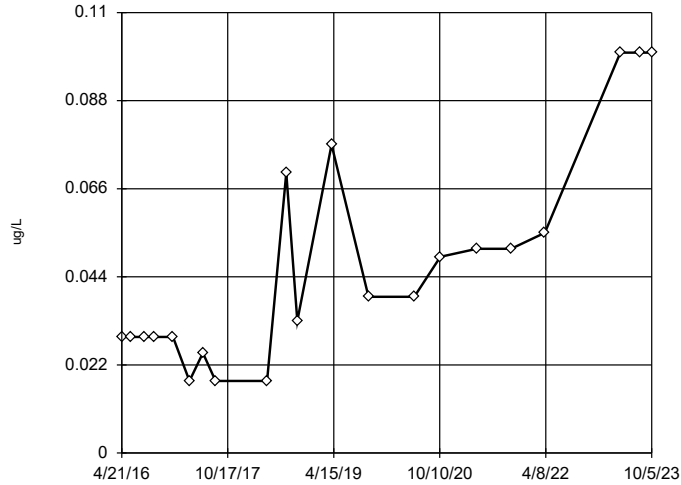
Boron MW-311 (bg)



n = 22
 No statistical outliers.
 Testing for 1 low outlier.
 Mean = 2132.
 Std. Dev. = 680.6
 360 (X): c = 0.4228
 tab1 = 0.43.
 Alpha = 0.05.
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.9838
 Critical = 0.873
 The distribution was found to be normally distributed.

Dixon's Outlier Test Analysis Run 1/26/2024 1:55 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

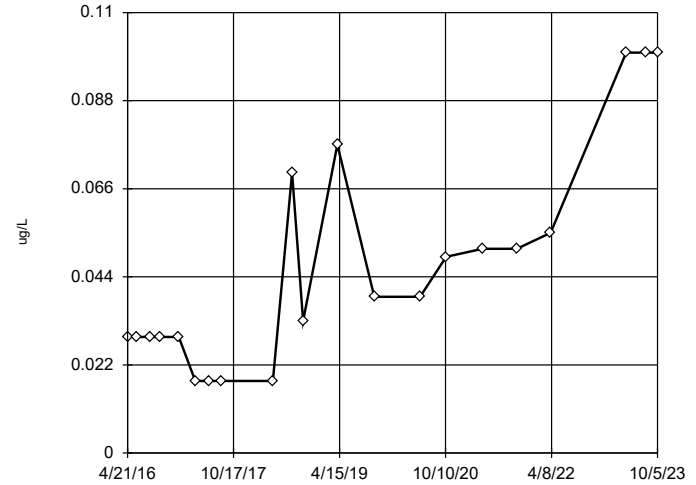
Cadmium MW-310 (bg)



n = 21
 Dixon's will not be run.
 No suspect values identified or unable to establish suspect values.
 Mean 0.04705, std. dev. 0.0273, critical Tn 2.58
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.9314
 Critical = 0.873 (after natural log transformation)
 The distribution was found to be log-normal.

EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:55 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Cadmium MW-311 (bg)



n = 21
 Dixon's will not be run.
 No suspect values identified or unable to establish suspect values.
 Mean 0.04671, std. dev. 0.02762, critical Tn 2.58
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.9237
 Critical = 0.873 (after natural log transformation)
 The distribution was found to be log-normal.

EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Dixon's Outlier Test

Constituent: Boron (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	437
6/7/2016	422
8/16/2016	326
10/3/2016	400
1/9/2017	413
4/4/2017	503
6/12/2017	2210 (XO)
8/16/2017	365
10/16/2017	305
5/8/2018	217
8/14/2018	256
10/10/2018	268
4/4/2019	560
10/11/2019	380
6/2/2020	500
10/14/2020	290
4/19/2021	220
10/12/2021	310
4/4/2022	230
4/27/2023	150
8/3/2023	260
10/5/2023	130

Dixon's Outlier Test

Constituent: Boron (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	1810
6/7/2016	2070
8/16/2016	2320
10/3/2016	2950
1/9/2017	2160
4/4/2017	2400
6/12/2017	2130
8/16/2017	360 (X)
10/16/2017	2810
5/8/2018	2200
8/14/2018	2580
10/10/2018	2820
4/4/2019	1800
10/11/2019	2800
6/2/2020	2500
10/14/2020	3500
4/19/2021	2000
10/12/2021	1800
4/4/2022	1600
4/27/2023	1200
8/3/2023	1700
10/5/2023	1400

EPA 1989 Outlier Screening

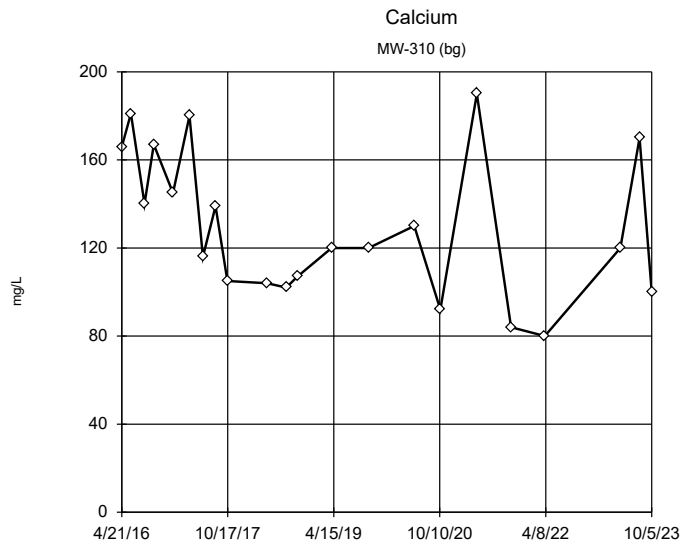
Constituent: Cadmium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	<0.029 (U)
6/7/2016	<0.029 (U)
8/16/2016	<0.029 (U)
10/3/2016	<0.029 (U)
1/9/2017	<0.029 (U)
4/4/2017	<0.018 (U)
6/12/2017	0.025 (J)
8/16/2017	<0.018 (U)
5/8/2018	<0.018 (U)
8/14/2018	<0.07 (U)
10/10/2018	<0.033 (U)
4/4/2019	<0.077 (U)
10/11/2019	<0.039 (U)
6/2/2020	<0.039 (U)
10/14/2020	<0.049 (U)
4/19/2021	<0.051 (U)
10/12/2021	<0.051 (U)
4/4/2022	<0.055 (U)
4/27/2023	<0.1 (U)
8/3/2023	<0.1 (U)
10/5/2023	<0.1 (U)

EPA 1989 Outlier Screening

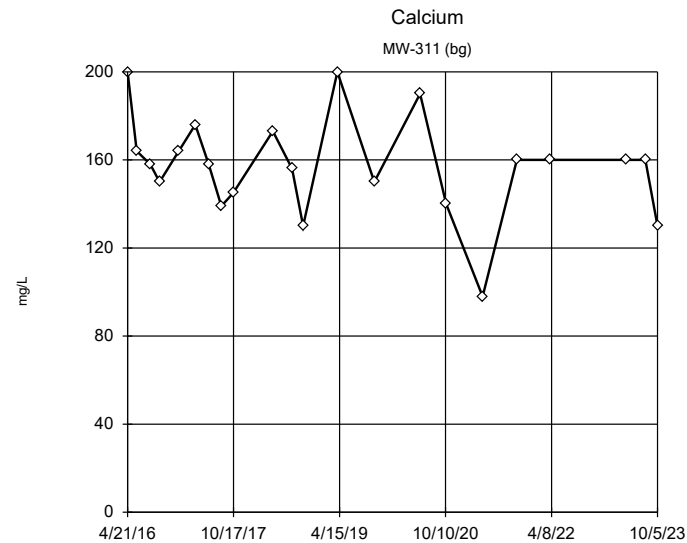
Constituent: Cadmium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	<0.029 (U)
6/7/2016	<0.029 (U)
8/16/2016	<0.029 (U)
10/3/2016	<0.029 (U)
1/9/2017	<0.029 (U)
4/4/2017	<0.018 (U)
6/12/2017	<0.018 (U)
8/16/2017	<0.018 (U)
5/8/2018	<0.018 (U)
8/14/2018	<0.07 (U)
10/10/2018	<0.033 (U)
4/4/2019	<0.077 (U)
10/11/2019	<0.039 (U)
6/2/2020	<0.039 (U)
10/14/2020	<0.049 (U)
4/19/2021	<0.051 (U)
10/12/2021	<0.051 (U)
4/4/2022	<0.055 (U)
4/27/2023	<0.1 (U)
8/3/2023	<0.1 (U)
10/5/2023	<0.1 (U)



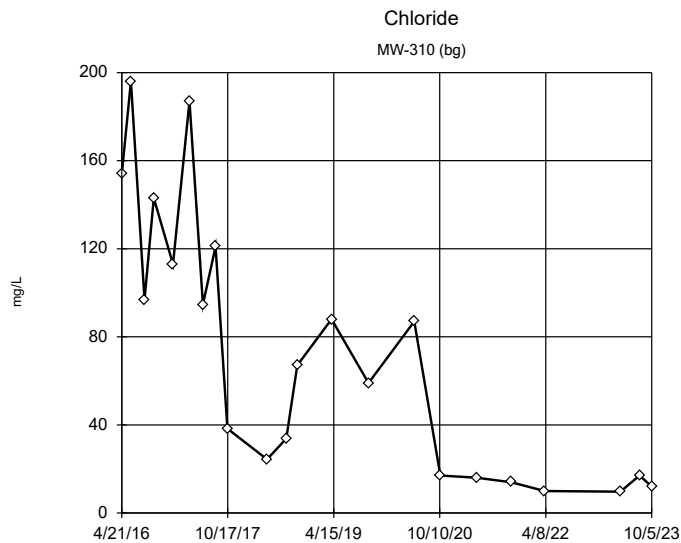
n = 22
Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Mean 123.9, std. dev. 33.41, critical Tn 2.603
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9388
Critical = 0.878
The distribution was found to be normally distributed.

EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



n = 22
No statistical outliers.
Testing for 1 low outlier.
Mean = 157.3
Std. Dev. = 23.23
95-c = 0.3478
tbl = 0.43
Alpha = 0.05
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9316
Critical = 0.873
The distribution was found to be normally distributed.

Dixon's Outlier Test Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



EPA 1989 Outlier Screening

Constituent: Calcium (mg/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	166
6/7/2016	181
8/16/2016	140
10/3/2016	167
1/9/2017	145
4/4/2017	180
6/12/2017	116
8/16/2017	139
10/16/2017	105
5/8/2018	104
8/14/2018	102
10/10/2018	107
4/4/2019	120
10/11/2019	120
6/2/2020	130
10/14/2020	92
4/19/2021	190
10/12/2021	84
4/4/2022	80
4/27/2023	120
8/3/2023	170
10/5/2023	100

Dixon's Outlier Test

Constituent: Calcium (mg/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	200
6/7/2016	164
8/16/2016	158
10/3/2016	150
1/9/2017	164
4/4/2017	176
6/12/2017	158
8/16/2017	139
10/16/2017	145
5/8/2018	173
8/14/2018	156
10/10/2018	130
4/4/2019	200
10/11/2019	150
6/2/2020	190
10/14/2020	140
4/19/2021	98
10/12/2021	160
4/4/2022	160
4/27/2023	160
8/3/2023	160
10/5/2023	130

EPA 1989 Outlier Screening

Constituent: Chloride (mg/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

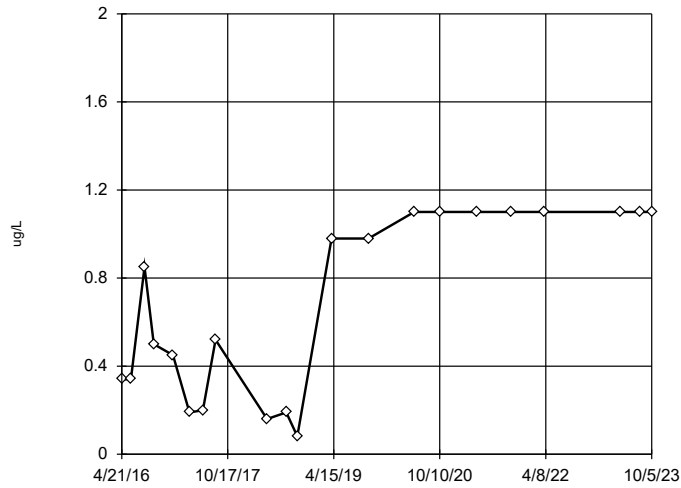
	MW-310 (bg)
4/21/2016	154
6/7/2016	196
8/16/2016	96.9
10/3/2016	143
1/9/2017	113
4/4/2017	187
6/12/2017	94.7
8/16/2017	121
10/16/2017	38.3
5/8/2018	24.4
8/14/2018	33.8
10/10/2018	67.1
4/4/2019	88
10/11/2019	59
6/2/2020	87
10/14/2020	17
4/19/2021	16
10/12/2021	14
4/4/2022	10
4/27/2023	9.7
8/3/2023	17
10/5/2023	12

EPA 1989 Outlier Screening

Constituent: Chloride (mg/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	125
6/7/2016	75.4
8/16/2016	77.4
10/3/2016	62.7
1/9/2017	78.7
4/4/2017	83.3
6/12/2017	81.1
8/16/2017	45
10/16/2017	50.9
5/8/2018	79.9
8/14/2018	69.9
10/10/2018	54
4/4/2019	110
10/11/2019	65
6/2/2020	120
10/14/2020	61
4/19/2021	100
10/12/2021	110
4/4/2022	85
4/27/2023	23
8/3/2023	31
10/5/2023	21

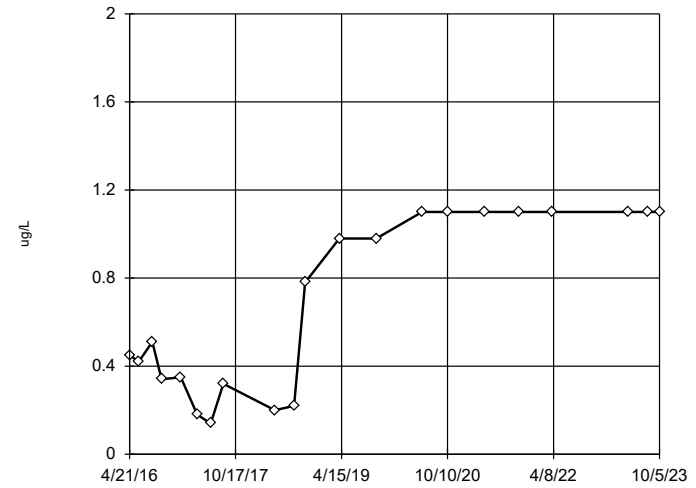
Chromium
MW-310 (bg)



n = 21
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were cube root transformed to achieve best W statistic (graph shown in original units).
High cutoff = 10.72, low cutoff = -0.15, based on IQR multiplier of 3.

Tukey's Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

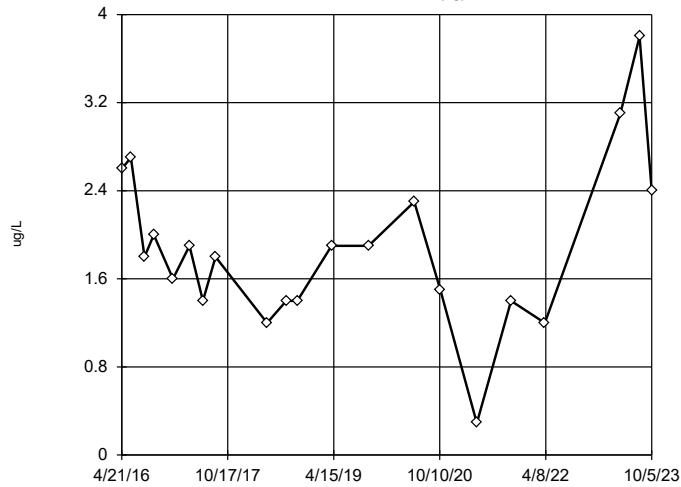
Chromium
MW-311 (bg)



n = 21
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
Data were natural log transformed to achieve best W statistic (graph shown in original units).
High cutoff = 40.8, low cutoff = 0.008894, based on IQR multiplier of 3.

Tukey's Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

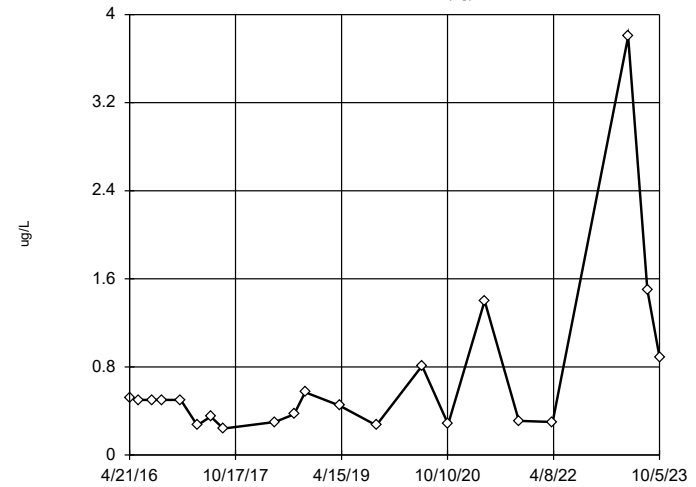
Cobalt
MW-310 (bg)



n = 21
No statistical outliers.
Testing for 1 low outlier.
Mean = 1.885,
Std. Dev. = 0.7562,
0.29 (J); c = 0.3776
tab1 = 0.44,
Alpha = 0.05.
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8886
Critical = 0.868
The distribution was found to be normally distributed.

Dixon's Outlier Test Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Cobalt
MW-311 (bg)



n = 21
No statistical outliers.
Testing for 1 high outlier.
Mean = 0.6967,
Std. Dev. = 0.7912,
3.8; c = 0.3776
tab1 = 0.44,
Alpha = 0.05.
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8974
Critical = 0.868 (after natural log transformation)
The distribution was found to be log-normal.

Dixon's Outlier Test Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Tukey's Outlier Screening

Constituent: Chromium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	<0.34 (U)
6/7/2016	<0.34 (U)
8/16/2016	0.85 (J)
10/3/2016	0.5 (J)
1/9/2017	0.45 (J)
4/4/2017	0.19 (J)
6/12/2017	0.2 (J)
8/16/2017	0.52 (J)
5/8/2018	0.16 (J)
8/14/2018	<0.19 (U)
10/10/2018	0.082 (J)
4/4/2019	<0.98 (U)
10/11/2019	<0.98 (U)
6/2/2020	<1.1 (U)
10/14/2020	<1.1 (U)
4/19/2021	<1.1 (U)
10/12/2021	<1.1 (U)
4/4/2022	<1.1 (U)
4/27/2023	<1.1 (U)
8/3/2023	<1.1 (U)
10/5/2023	<1.1 (U)

Tukey's Outlier Screening

Constituent: Chromium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	0.45 (J)
6/7/2016	0.42 (J)
8/16/2016	0.51 (J)
10/3/2016	<0.34 (U)
1/9/2017	0.35 (J)
4/4/2017	0.18 (J)
6/12/2017	0.14 (J)
8/16/2017	0.32 (J)
5/8/2018	0.2 (J)
8/14/2018	0.22 (J)
10/10/2018	0.78 (J)
4/4/2019	<0.98 (U)
10/11/2019	<0.98 (U)
6/2/2020	<1.1 (U)
10/14/2020	<1.1 (U)
4/19/2021	<1.1 (U)
10/12/2021	<1.1 (U)
4/4/2022	<1.1 (U)
4/27/2023	<1.1 (U)
8/3/2023	<1.1 (U)
10/5/2023	<1.1 (U)

Dixon's Outlier Test

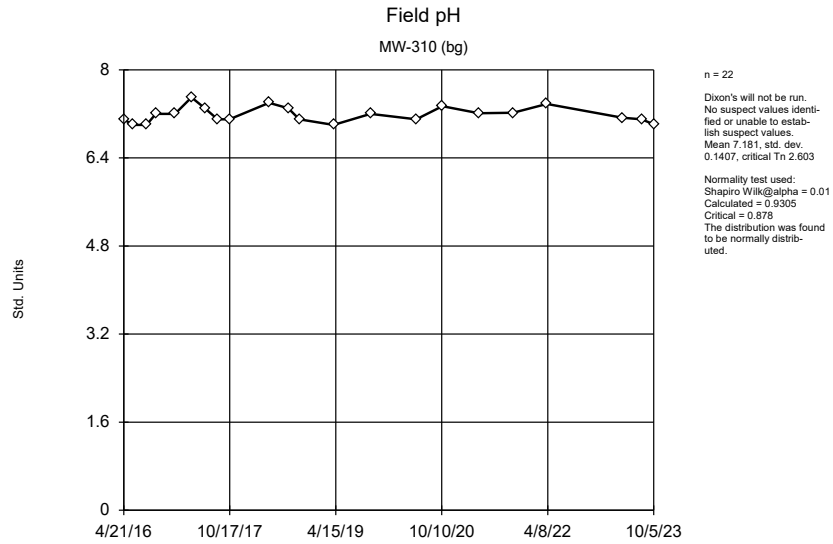
Constituent: Cobalt (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	2.6
6/7/2016	2.7
8/16/2016	1.8
10/3/2016	2
1/9/2017	1.6
4/4/2017	1.9
6/12/2017	1.4
8/16/2017	1.8
5/8/2018	1.2
8/14/2018	1.4
10/10/2018	1.4
4/4/2019	1.9
10/11/2019	1.9
6/2/2020	2.3
10/14/2020	1.5
4/19/2021	0.29 (J)
10/12/2021	1.4
4/4/2022	1.2
4/27/2023	3.1
8/3/2023	3.8
10/5/2023	2.4

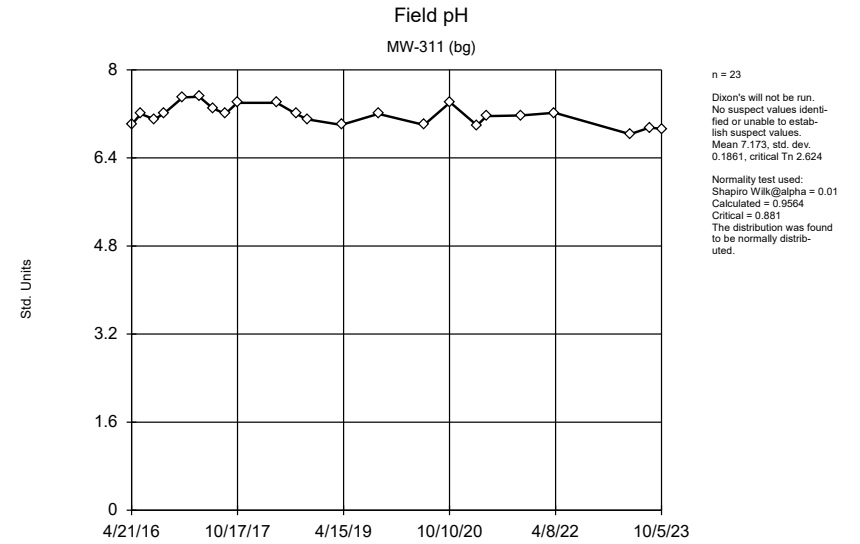
Dixon's Outlier Test

Constituent: Cobalt (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

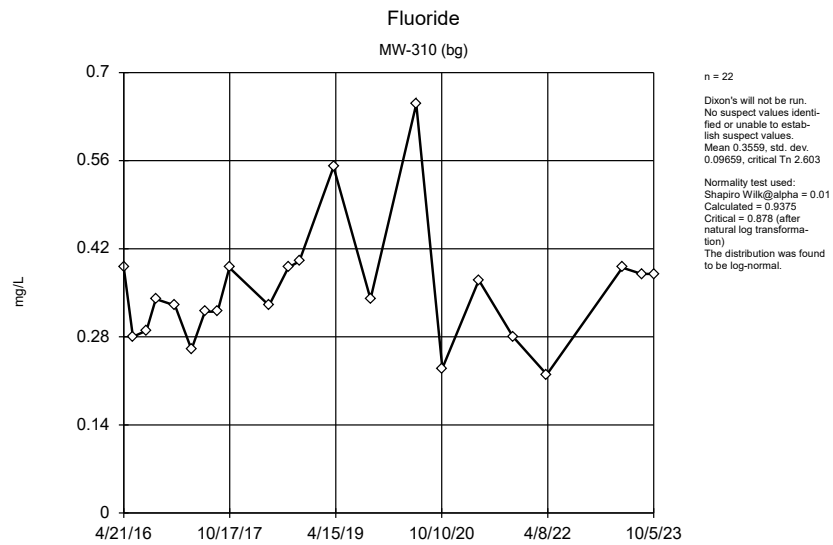
	MW-311 (bg)
4/21/2016	0.52 (J)
6/7/2016	<0.5 (U)
8/16/2016	<0.5 (U)
10/3/2016	<0.5 (U)
1/9/2017	<0.5 (U)
4/4/2017	0.27 (J)
6/12/2017	0.35 (J)
8/16/2017	0.24 (J)
5/8/2018	0.3 (J)
8/14/2018	0.37 (J)
10/10/2018	0.57 (J)
4/4/2019	0.45 (J)
10/11/2019	0.27 (J)
6/2/2020	0.81
10/14/2020	0.28 (J)
4/19/2021	1.4
10/12/2021	0.31 (J)
4/4/2022	0.3 (J)
4/27/2023	3.8
8/3/2023	1.5
10/5/2023	0.89



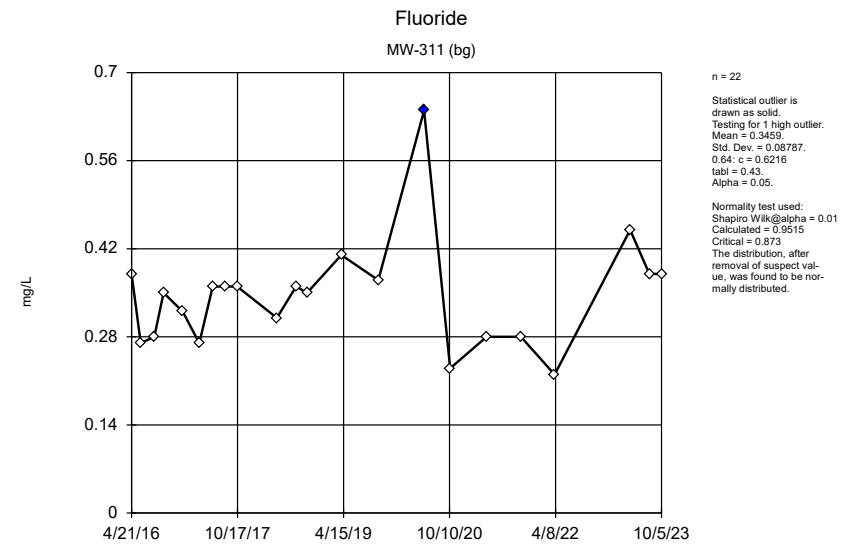
EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



Dixon's Outlier Test Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

EPA 1989 Outlier Screening

Constituent: Field pH (Std. Units) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	7.1
6/7/2016	7
8/16/2016	7
10/3/2016	7.2
1/9/2017	7.2
4/4/2017	7.5
6/12/2017	7.3
8/16/2017	7.1
10/16/2017	7.1
5/8/2018	7.4
8/14/2018	7.3
10/10/2018	7.1
4/4/2019	7
10/11/2019	7.2
6/2/2020	7.1
10/14/2020	7.34
4/19/2021	7.21
10/12/2021	7.22
4/4/2022	7.38
4/27/2023	7.13
8/3/2023	7.1
10/5/2023	7.01

EPA 1989 Outlier Screening

Constituent: Field pH (Std. Units) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	7
6/7/2016	7.2
8/16/2016	7.1
10/3/2016	7.2
1/9/2017	7.5
4/4/2017	7.51
6/12/2017	7.3
8/16/2017	7.2
10/16/2017	7.4
5/8/2018	7.4
8/14/2018	7.2
10/10/2018	7.1
4/4/2019	7
10/11/2019	7.2
6/2/2020	7
10/14/2020	7.41
3/1/2021	6.99
4/19/2021	7.16
10/12/2021	7.17
4/4/2022	7.22
4/27/2023	6.83
8/3/2023	6.95
10/5/2023	6.93

EPA 1989 Outlier Screening

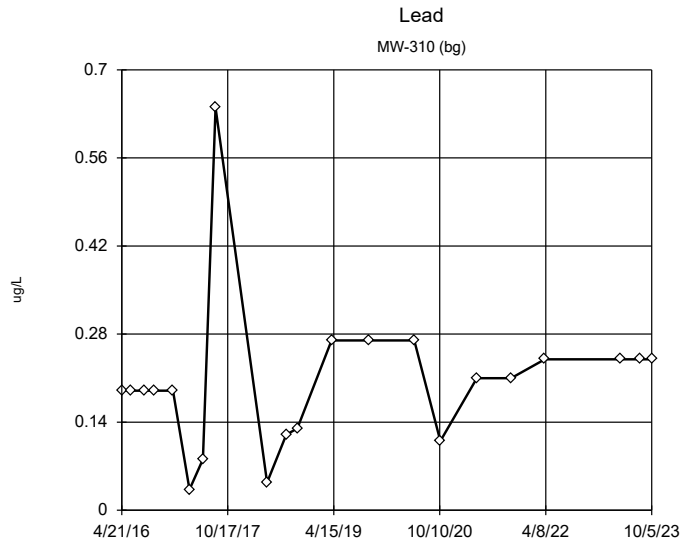
Constituent: Fluoride (mg/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	0.39
6/7/2016	0.28
8/16/2016	0.29
10/3/2016	0.34
1/9/2017	0.33
4/4/2017	0.26
6/12/2017	0.32
8/16/2017	0.32
10/16/2017	0.39
5/8/2018	0.33
8/14/2018	0.39
10/10/2018	0.4
4/4/2019	0.55
10/11/2019	0.34 (J)
6/2/2020	0.65
10/14/2020	<0.23 (U)
4/19/2021	0.37 (J)
10/12/2021	<0.28 (U)
4/4/2022	<0.22 (U)
4/27/2023	0.39 (J)
8/3/2023	<0.38 (U)
10/5/2023	<0.38 (U)

Dixon's Outlier Test

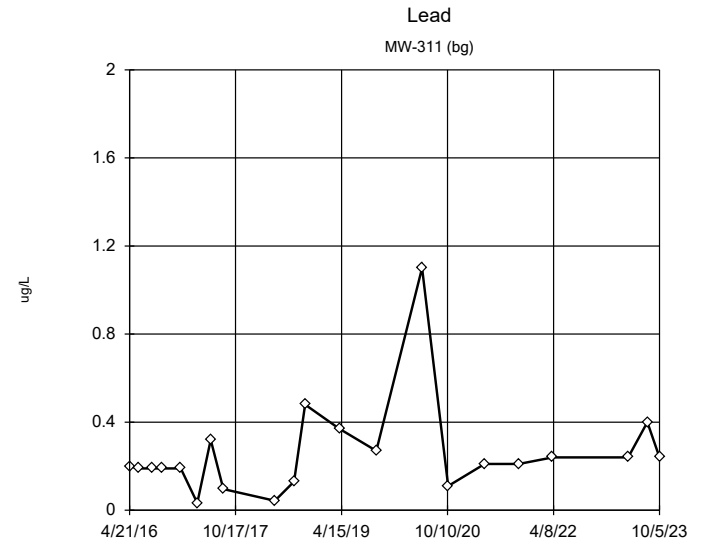
Constituent: Fluoride (mg/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	0.38
6/7/2016	0.27
8/16/2016	0.28
10/3/2016	0.35
1/9/2017	0.32
4/4/2017	0.27
6/12/2017	0.36
8/16/2017	0.36
10/16/2017	0.36
5/8/2018	0.31
8/14/2018	0.36
10/10/2018	0.35
4/4/2019	0.41 (J)
10/11/2019	0.37 (J)
6/2/2020	0.64 (O)
10/14/2020	<0.23 (U)
4/19/2021	<0.28 (U)
10/12/2021	<0.28 (U)
4/4/2022	<0.22 (U)
4/27/2023	0.45 (J)
8/3/2023	<0.38 (U)
10/5/2023	<0.38 (U)



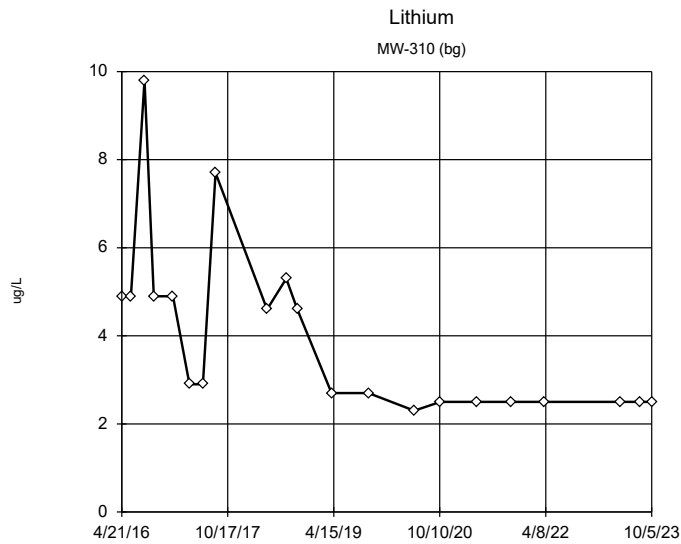
n = 21
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were cube root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.9587, low cutoff = 0.002477, based on IQR multiplier of 3.

Tukey's Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



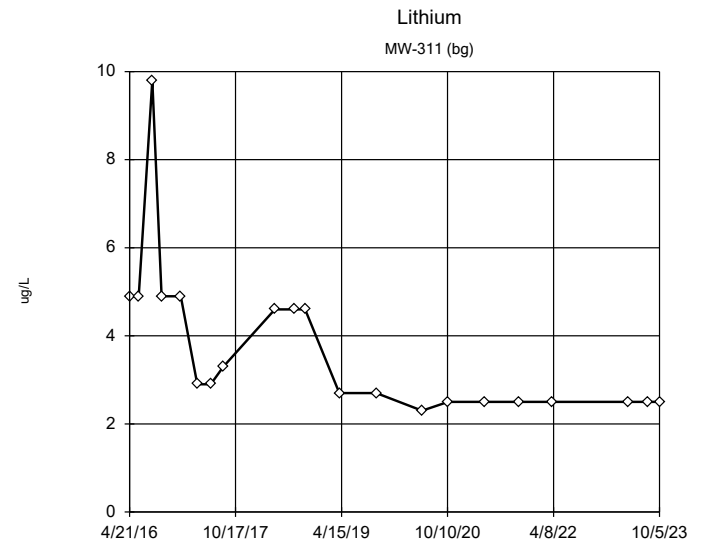
n = 21
 Dixon's will not be run. No suspect values identified or unable to establish suspect values. Mean 0.2596, std. dev. 0.2218, critical Tr 2.58
 Normality test used: Shapiro Wilk@alpha = 0.01
 Calculated = 0.9264
 Critical = 0.873 (after natural log transformation)
 The distribution was found to be log-normal.

EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



n = 21
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because both the lower and upper quartiles represent reporting limits.

Tukey's Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



n = 21
 No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 32.52, low cutoff = 0.365, based on IQR multiplier of 3.

Tukey's Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Tukey's Outlier Screening

Constituent: Lead (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	<0.19 (U)
6/7/2016	<0.19 (U)
8/16/2016	<0.19 (U)
10/3/2016	<0.19 (U)
1/9/2017	<0.19 (U)
4/4/2017	<0.033 (U)
6/12/2017	0.081 (J)
8/16/2017	0.64 (J)
5/8/2018	0.044 (J)
8/14/2018	<0.12 (U)
10/10/2018	<0.13 (U)
4/4/2019	<0.27 (U)
10/11/2019	<0.27 (U)
6/2/2020	<0.27 (U)
10/14/2020	<0.11 (U)
4/19/2021	<0.21 (U)
10/12/2021	<0.21 (U)
4/4/2022	<0.24 (U)
4/27/2023	<0.24 (U)
8/3/2023	<0.24 (U)
10/5/2023	<0.24 (U)

EPA 1989 Outlier Screening

Constituent: Lead (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	0.2 (J)
6/7/2016	<0.19 (U)
8/16/2016	<0.19 (U)
10/3/2016	<0.19 (U)
1/9/2017	<0.19 (U)
4/4/2017	<0.033 (U)
6/12/2017	0.32 (J)
8/16/2017	0.096 (J)
5/8/2018	0.043 (J)
8/14/2018	0.13 (J)
10/10/2018	0.48 (J)
4/4/2019	0.37 (J)
10/11/2019	<0.27 (U)
6/2/2020	1.1
10/14/2020	<0.11 (U)
4/19/2021	<0.21 (U)
10/12/2021	<0.21 (U)
4/4/2022	<0.24 (U)
4/27/2023	<0.24 (U)
8/3/2023	0.4 (J)
10/5/2023	<0.24 (U)

Tukey's Outlier Screening

Constituent: Lithium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

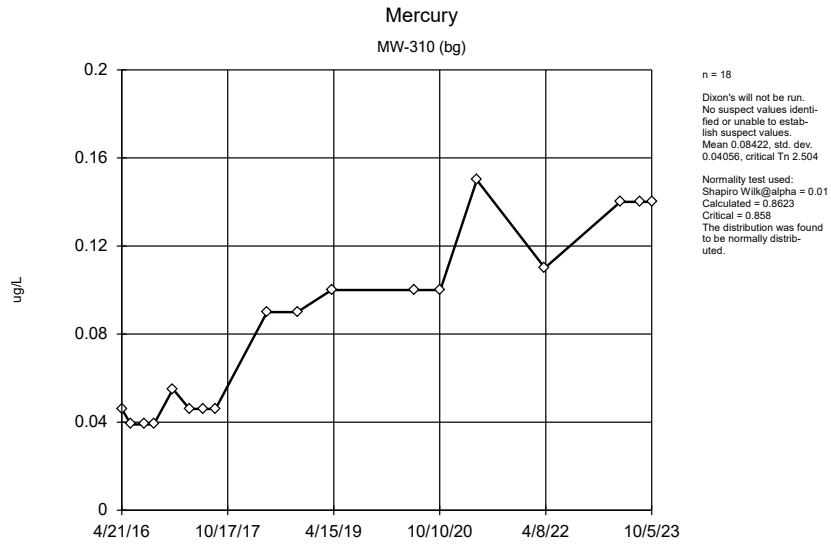
	MW-310 (bg)
4/21/2016	<4.9 (U)
6/7/2016	<4.9 (U)
8/16/2016	<9.8 (U)
10/3/2016	<4.9 (U)
1/9/2017	<4.9 (U)
4/4/2017	<2.9 (U)
6/12/2017	<2.9 (U)
8/16/2017	7.7 (J)
5/8/2018	<4.6 (U)
8/14/2018	5.3 (J)
10/10/2018	<4.6 (U)
4/4/2019	<2.7 (U)
10/11/2019	<2.7 (U)
6/2/2020	<2.3 (U)
10/14/2020	<2.5 (U)
4/19/2021	<2.5 (U)
10/12/2021	<2.5 (U)
4/4/2022	<2.5 (U)
4/27/2023	<2.5 (U)
8/3/2023	<2.5 (U)
10/5/2023	<2.5 (U)

Tukey's Outlier Screening

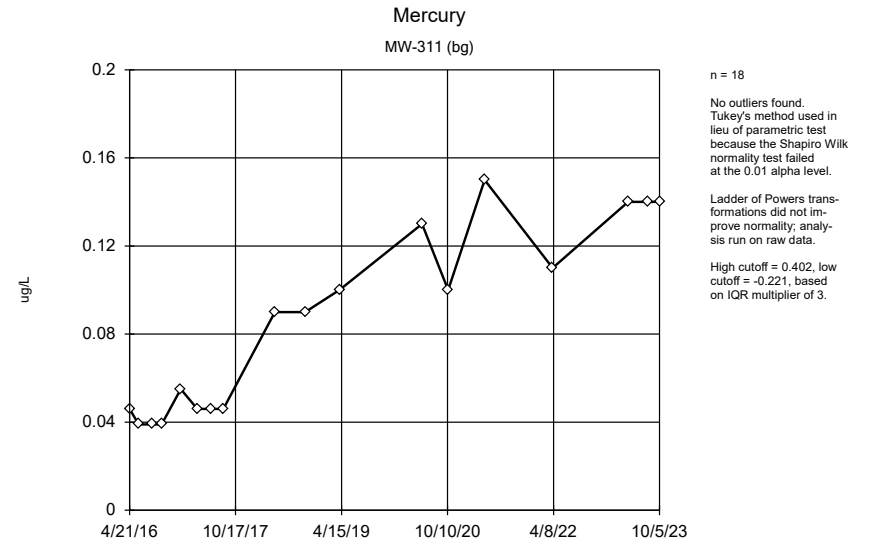
Constituent: Lithium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

MW-311 (bg)

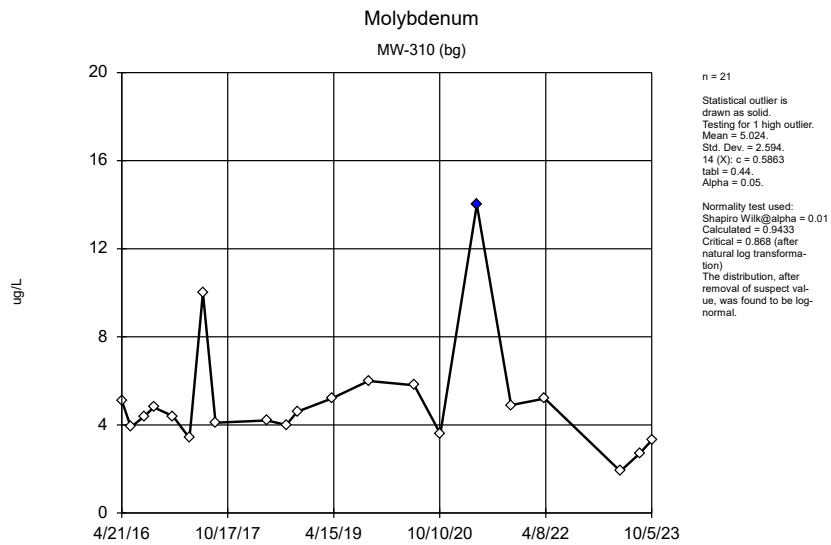
4/21/2016	<4.9 (U)
6/7/2016	<4.9 (U)
8/16/2016	<9.8 (U)
10/3/2016	<4.9 (U)
1/9/2017	<4.9 (U)
4/4/2017	<2.9 (U)
6/12/2017	<2.9 (U)
8/16/2017	3.3 (J)
5/8/2018	<4.6 (U)
8/14/2018	<4.6 (U)
10/10/2018	<4.6 (U)
4/4/2019	<2.7 (U)
10/11/2019	<2.7 (U)
6/2/2020	<2.3 (U)
10/14/2020	<2.5 (U)
4/19/2021	<2.5 (U)
10/12/2021	<2.5 (U)
4/4/2022	<2.5 (U)
4/27/2023	<2.5 (U)
8/3/2023	<2.5 (U)
10/5/2023	<2.5 (U)



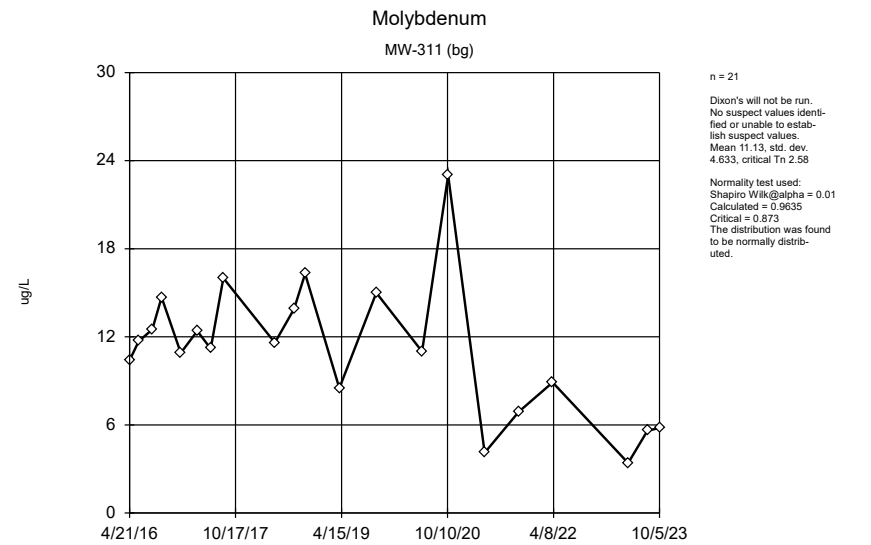
EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



Tukey's Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



Dixon's Outlier Test Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

EPA 1989 Outlier Screening

Constituent: Mercury (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	<0.046 (U)
6/7/2016	<0.039 (U)
8/16/2016	<0.039 (U)
10/3/2016	<0.039 (U)
1/9/2017	<0.055 (U)
4/4/2017	<0.046 (U)
6/12/2017	<0.046 (U)
8/16/2017	<0.046 (U)
5/8/2018	<0.09 (U)
10/10/2018	<0.09 (U)
4/4/2019	<0.1 (U)
6/2/2020	<0.1 (U)
10/14/2020	<0.1 (U)
4/19/2021	<0.15 (U)
4/4/2022	<0.11 (U)
4/27/2023	<0.14 (U)
8/3/2023	<0.14 (U)
10/5/2023	<0.14 (U)

Tukey's Outlier Screening

Constituent: Mercury (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	<0.046 (U)
6/7/2016	<0.039 (U)
8/16/2016	<0.039 (U)
10/3/2016	<0.039 (U)
1/9/2017	<0.055 (U)
4/4/2017	<0.046 (U)
6/12/2017	<0.046 (U)
8/16/2017	<0.046 (U)
5/8/2018	<0.09 (U)
10/10/2018	<0.09 (U)
4/4/2019	<0.1 (U)
6/2/2020	0.13 (J)
10/14/2020	<0.1 (U)
4/19/2021	<0.15 (U)
4/4/2022	<0.11 (U)
4/27/2023	<0.14 (U)
8/3/2023	<0.14 (U)
10/5/2023	<0.14 (U)

Dixon's Outlier Test

Constituent: Molybdenum (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	5.1
6/7/2016	3.9
8/16/2016	4.4
10/3/2016	4.8
1/9/2017	4.4
4/4/2017	3.4
6/12/2017	10 (X)
8/16/2017	4.1
5/8/2018	4.2
8/14/2018	4
10/10/2018	4.6
4/4/2019	5.2
10/11/2019	6
6/2/2020	5.8
10/14/2020	3.6
4/19/2021	14 (XO)
10/12/2021	4.9
4/4/2022	5.2
4/27/2023	1.9 (J)
8/3/2023	2.7
10/5/2023	3.3

EPA 1989 Outlier Screening

Constituent: Molybdenum (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	10.4
6/7/2016	11.7
8/16/2016	12.5
10/3/2016	14.7
1/9/2017	10.9
4/4/2017	12.4
6/12/2017	11.2
8/16/2017	16
5/8/2018	11.6
8/14/2018	13.9
10/10/2018	16.3
4/4/2019	8.5
10/11/2019	15
6/2/2020	11
10/14/2020	23
4/19/2021	4.1
10/12/2021	6.9
4/4/2022	8.9
4/27/2023	3.4
8/3/2023	5.6
10/5/2023	5.8

Tukey's Outlier Screening

Constituent: Selenium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	<0.18 (U)
6/7/2016	<0.18 (U)
8/16/2016	<0.18 (U)
10/3/2016	<0.18 (U)
1/9/2017	<0.18 (U)
4/4/2017	0.24 (J)
6/12/2017	0.18 (J)
8/16/2017	0.2 (J)
5/8/2018	0.14 (J)
8/14/2018	<0.16 (U)
10/10/2018	0.19 (J)
4/4/2019	<1 (U)
10/11/2019	<1 (U)
6/2/2020	<1 (U)
10/14/2020	<1 (U)
4/19/2021	<0.96 (U)
10/12/2021	<0.96 (U)
4/4/2022	<0.96 (U)
4/27/2023	<1.4 (U)
8/3/2023	<1.4 (U)
10/5/2023	<1.4 (U)

Tukey's Outlier Screening

Constituent: Selenium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	0.19 (J)
6/7/2016	<0.18 (U)
8/16/2016	<0.18 (U)
10/3/2016	<0.18 (U)
1/9/2017	0.2 (J)
4/4/2017	0.17 (J)
6/12/2017	0.19 (J)
8/16/2017	0.12 (J)
5/8/2018	0.17 (J)
8/14/2018	0.18 (J)
10/10/2018	0.23 (J)
4/4/2019	<1 (U)
10/11/2019	<1 (U)
6/2/2020	<1 (U)
10/14/2020	<1 (U)
4/19/2021	<0.96 (U)
10/12/2021	<0.96 (U)
4/4/2022	<0.96 (U)
4/27/2023	<1.4 (U)
8/3/2023	<1.4 (U)
10/5/2023	<1.4 (U)

EPA 1989 Outlier Screening

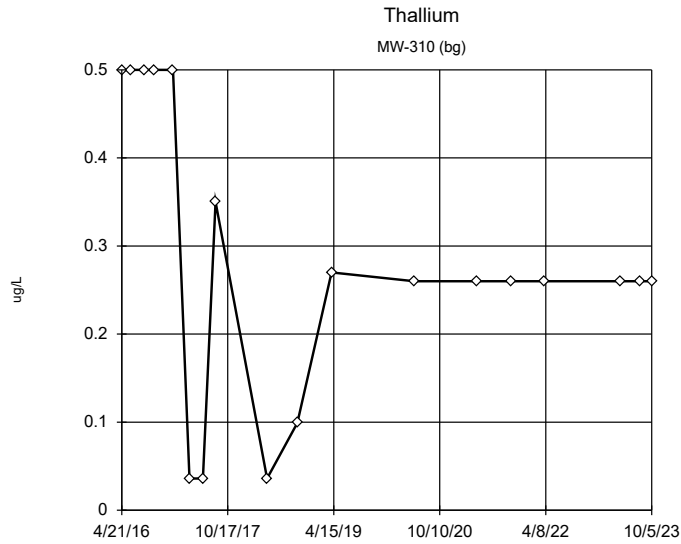
Constituent: Sulfate (mg/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	53.1
6/7/2016	47.7
8/16/2016	54
10/3/2016	62.6
1/9/2017	48.5
4/4/2017	34.3
6/12/2017	101
8/16/2017	41.3
10/16/2017	35.1
5/8/2018	28.8
8/14/2018	27.2
10/10/2018	37.9
4/4/2019	21
10/11/2019	51
6/2/2020	100
10/14/2020	19
4/19/2021	55
10/12/2021	55
4/4/2022	74
4/27/2023	340
8/3/2023	340
10/5/2023	210

EPA 1989 Outlier Screening

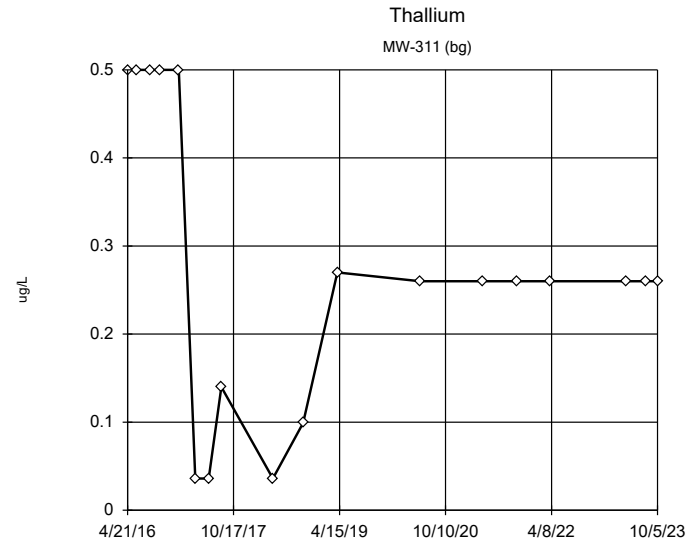
Constituent: Sulfate (mg/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	283
6/7/2016	179
8/16/2016	170
10/3/2016	161
1/9/2017	179
4/4/2017	184
6/12/2017	173
8/16/2017	112
10/16/2017	119
5/8/2018	176
8/14/2018	144
10/10/2018	127
4/4/2019	230
10/11/2019	130
6/2/2020	220
10/14/2020	110
4/19/2021	200
10/12/2021	190
4/4/2022	170
4/27/2023	290
8/3/2023	240
10/5/2023	150



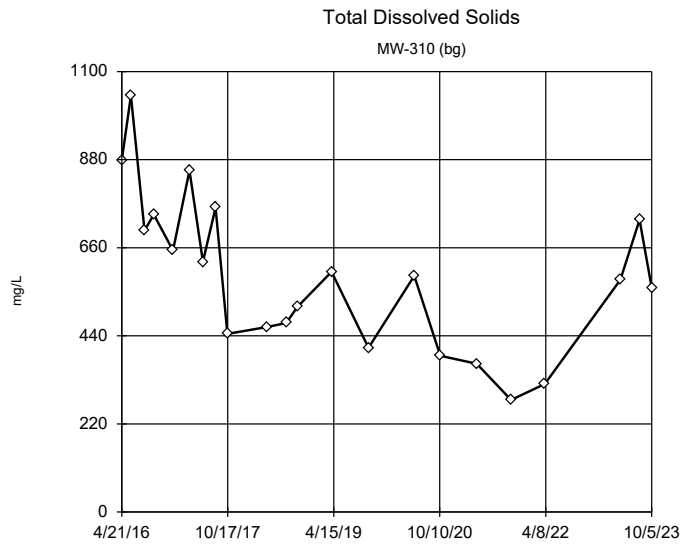
n = 18
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 High cutoff = 1.462, low cutoff = -0.782, based on IQR multiplier of 3.

Tukey's Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



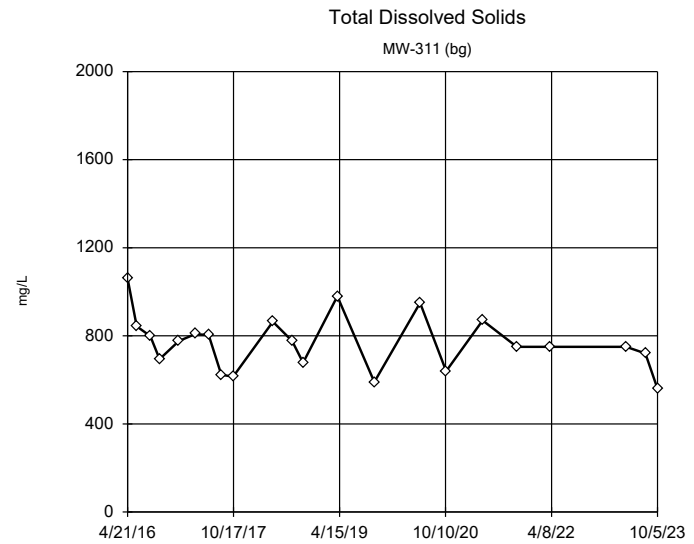
n = 18
 No outliers found.
 Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 3.223, low cutoff = -0.5531, based on IQR multiplier of 3.

Tukey's Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



n = 22
 Dixon's will not be run.
 No suspect values identified or unable to establish suspect values.
 Mean 589.9, std. dev. 194.4, critical Tn 2.603
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.9768
 Critical = 0.878
 The distribution was found to be normally distributed.

EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev



n = 22
 Dixon's will not be run.
 No suspect values identified or unable to establish suspect values.
 Mean 768.2, std. dev. 128.2, critical Tn 2.603
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.9727
 Critical = 0.878
 The distribution was found to be normally distributed.

EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Tukey's Outlier Screening

Constituent: Thallium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	<0.5 (U)
6/7/2016	<0.5 (U)
8/16/2016	<0.5 (U)
10/3/2016	<0.5 (U)
1/9/2017	<0.5 (U)
4/4/2017	<0.036 (U)
6/12/2017	<0.036 (U)
8/16/2017	0.35 (J)
5/8/2018	<0.036 (U)
10/10/2018	<0.099 (U)
4/4/2019	<0.27 (U)
6/2/2020	<0.26 (U)
4/19/2021	<0.26 (U)
10/12/2021	<0.26 (U)
4/4/2022	<0.26 (U)
4/27/2023	<0.26 (U)
8/3/2023	<0.26 (U)
10/5/2023	<0.26 (U)

Tukey's Outlier Screening

Constituent: Thallium (ug/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	<0.5 (U)
6/7/2016	<0.5 (U)
8/16/2016	<0.5 (U)
10/3/2016	<0.5 (U)
1/9/2017	<0.5 (U)
4/4/2017	<0.036 (U)
6/12/2017	<0.036 (U)
8/16/2017	0.14 (J)
5/8/2018	<0.036 (U)
10/10/2018	<0.099 (U)
4/4/2019	<0.27 (U)
6/2/2020	<0.26 (U)
4/19/2021	<0.26 (U)
10/12/2021	<0.26 (U)
4/4/2022	<0.26 (U)
4/27/2023	<0.26 (U)
8/3/2023	<0.26 (U)
10/5/2023	<0.26 (U)

EPA 1989 Outlier Screening

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

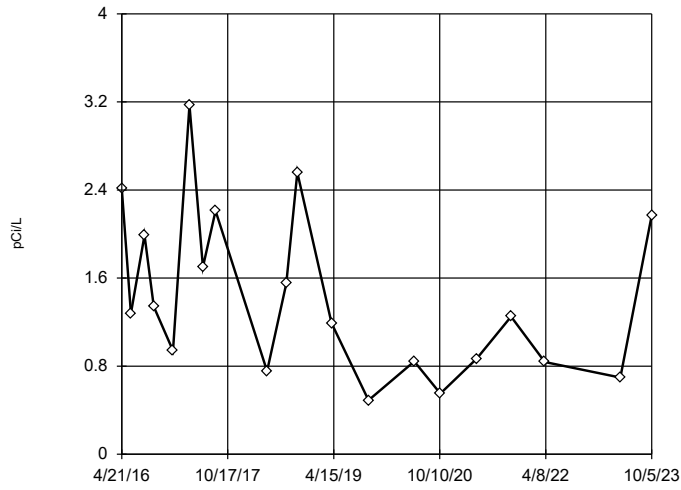
	MW-310 (bg)
4/21/2016	879
6/7/2016	1040
8/16/2016	703
10/3/2016	743
1/9/2017	653
4/4/2017	853
6/12/2017	625
8/16/2017	760
10/16/2017	445
5/8/2018	462
8/14/2018	472
10/10/2018	512
4/4/2019	600
10/11/2019	410
6/2/2020	590
10/14/2020	390
4/19/2021	370
10/12/2021	280
4/4/2022	320
4/27/2023	580
8/3/2023	730
10/5/2023	560

EPA 1989 Outlier Screening

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	1060
6/7/2016	843
8/16/2016	799
10/3/2016	694
1/9/2017	776
4/4/2017	808
6/12/2017	803
8/16/2017	623
10/16/2017	615
5/8/2018	864
8/14/2018	777
10/10/2018	678
4/4/2019	980
10/11/2019	590
6/2/2020	950
10/14/2020	640
4/19/2021	870
10/12/2021	750
4/4/2022	750
4/27/2023	750
8/3/2023	720
10/5/2023	560

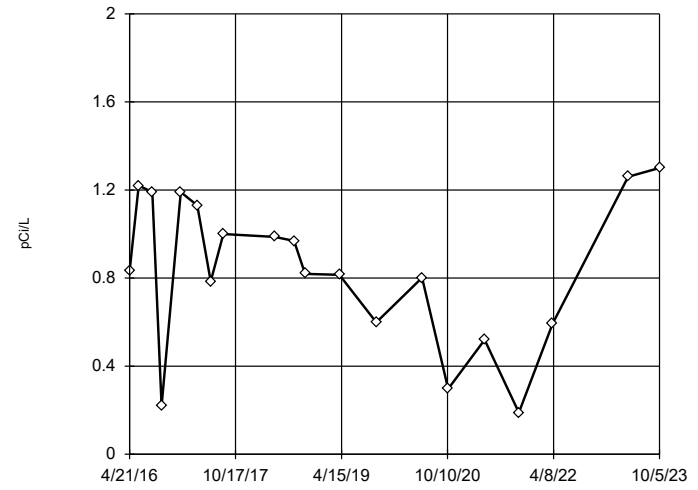
Total Radium MW-310 (bg)



n = 20
 Dixon's will not be run.
 No suspect values identified or unable to establish suspect values.
 Mean 1.44, std. dev. 0.7552, critical Tr 2.557
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.9262
 Critical = 0.868
 The distribution was found to be normally distributed.

EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Total Radium MW-311 (bg)



n = 20
 Dixon's will not be run.
 No suspect values identified or unable to establish suspect values.
 Mean 0.8358, std. dev. 0.3445, critical Tr 2.557
 Normality test used:
 Shapiro Wilk@alpha = 0.01
 Calculated = 0.9316
 Critical = 0.868
 The distribution was found to be normally distributed.

EPA 1989 Outlier Screening Analysis Run 1/26/2024 1:56 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

EPA 1989 Outlier Screening

Constituent: Total Radium (pCi/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)
4/21/2016	2.41
6/7/2016	1.28
8/16/2016	1.99
10/3/2016	1.34
1/9/2017	0.941
4/4/2017	3.17
6/12/2017	1.7
8/16/2017	2.21
5/8/2018	0.755
8/14/2018	1.55
10/10/2018	2.56
4/4/2019	1.19
10/11/2019	0.49
6/2/2020	0.844
10/14/2020	0.552
4/19/2021	0.869
10/12/2021	1.25
4/4/2022	0.838
4/27/2023	0.696
10/5/2023	2.17

EPA 1989 Outlier Screening

Constituent: Total Radium (pCi/L) Analysis Run 1/26/2024 1:58 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311 (bg)
4/21/2016	0.831
6/7/2016	1.22
8/16/2016	1.19
10/3/2016	0.22
1/9/2017	1.19
4/4/2017	1.13
6/12/2017	0.785
8/16/2017	1
5/8/2018	0.987
8/14/2018	0.969
10/10/2018	0.819
4/4/2019	0.815
10/11/2019	0.599
6/2/2020	0.802
10/14/2020	0.297
4/19/2021	0.52
10/12/2021	0.189
4/4/2022	0.593
4/27/2023	1.26
10/5/2023	1.3

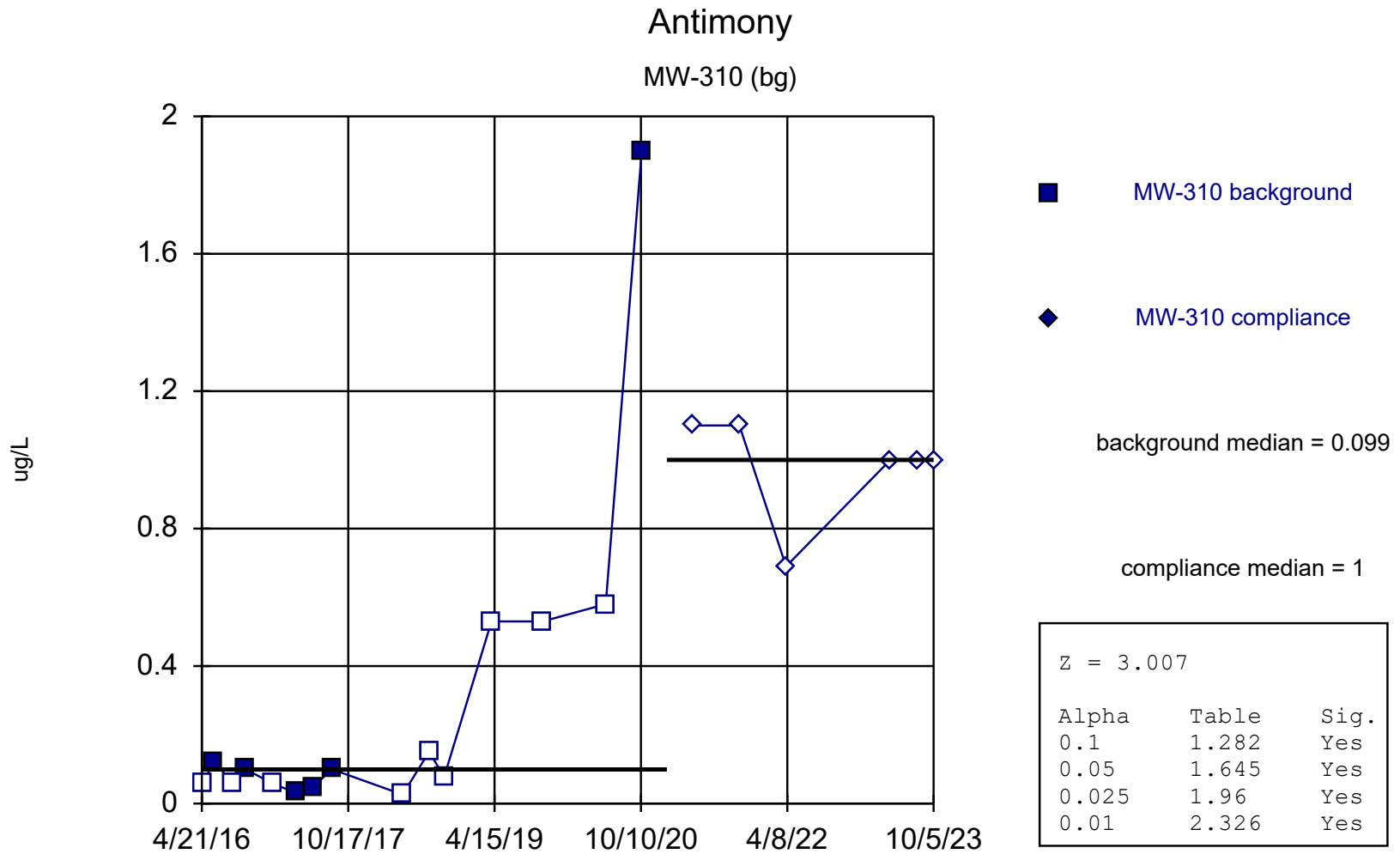
Attachment 3

Welch's/Mann-Whitney Comparison

Welch's t-test/Mann-Whitney

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 1/26/2024, 3:18 PM

<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.1</u>	<u>0.05</u>	<u>0.025</u>	<u>0.01</u>	<u>Method</u>
Antimony (ug/L)	MW-310 (bg)	3.007	Yes	Yes	Yes	Yes	Mann-W
Antimony (ug/L)	MW-311 (bg)	3.477	Yes	Yes	Yes	Yes	Mann-W
Arsenic (ug/L)	MW-310 (bg)	-2.663	No	No	No	No	Mann-W
Arsenic (ug/L)	MW-311 (bg)	-0....	No	No	No	No	Mann-W
Barium (ug/L)	MW-310 (bg)	-3.309	No	No	No	No	Mann-W
Barium (ug/L)	MW-311 (bg)	-1.053	No	No	No	No	Mann-W
Beryllium (ug/L)	MW-310 (bg)	3.082	Yes	Yes	Yes	Yes	Mann-W
Beryllium (ug/L)	MW-311 (bg)	3.078	Yes	Yes	Yes	Yes	Mann-W
Boron (ug/L)	MW-310 (bg)	-2.842	No	No	No	No	Mann-W
Boron (ug/L)	MW-311 (bg)	-3.349	No	No	No	No	Mann-W
Cadmium (ug/L)	MW-310 (bg)	3.027	Yes	Yes	Yes	Yes	Mann-W
Cadmium (ug/L)	MW-311 (bg)	3.033	Yes	Yes	Yes	Yes	Mann-W
Calcium (mg/L)	MW-310 (bg)	-0....	No	No	No	No	Mann-W
Calcium (mg/L)	MW-311 (bg)	-0....	No	No	No	No	Mann-W
Chloride (mg/L)	MW-310 (bg)	-3.54	No	No	No	No	Mann-W
Chloride (mg/L)	MW-311 (bg)	-0....	No	No	No	No	Mann-W
Chromium (ug/L)	MW-310 (bg)	3.085	Yes	Yes	Yes	Yes	Mann-W
Chromium (ug/L)	MW-311 (bg)	3.084	Yes	Yes	Yes	Yes	Mann-W
Cobalt (ug/L)	MW-310 (bg)	0.0...	No	No	No	No	Mann-W
Cobalt (ug/L)	MW-311 (bg)	1.876	Yes	Yes	No	No	Mann-W
Field pH (Std. Units)	MW-310 (bg)	0.2986	No	No	No	No	Mann-W
Field pH (Std. Units)	MW-311 (bg)	-2.455	No	No	No	No	Mann-W
Fluoride (mg/L)	MW-310 (bg)	-0....	No	No	No	No	Mann-W
Fluoride (mg/L)	MW-311 (bg)	0.0...	No	No	No	No	Mann-W
Lead (ug/L)	MW-310 (bg)	1.614	Yes	No	No	No	Mann-W
Lead (ug/L)	MW-311 (bg)	1.369	Yes	No	No	No	Mann-W
Lithium (ug/L)	MW-310 (bg)	-2.907	No	No	No	No	Mann-W
Lithium (ug/L)	MW-311 (bg)	-2.91	No	No	No	No	Mann-W
Mercury (ug/L)	MW-310 (bg)	3.192	Yes	Yes	Yes	Yes	Mann-W
Mercury (ug/L)	MW-311 (bg)	3.088	Yes	Yes	Yes	Yes	Mann-W
Molybdenum (ug/L)	MW-310 (bg)	-1.297	No	No	No	No	Mann-W
Molybdenum (ug/L)	MW-311 (bg)	-3.464	No	No	No	No	Mann-W
Selenium (ug/L)	MW-310 (bg)	2.562	Yes	Yes	Yes	Yes	Mann-W
Selenium (ug/L)	MW-311 (bg)	2.55	Yes	Yes	Yes	Yes	Mann-W
Sulfate (mg/L)	MW-310 (bg)	2.914	Yes	Yes	Yes	Yes	Mann-W
Sulfate (mg/L)	MW-311 (bg)	1.623	Yes	No	No	No	Mann-W
Thallium (ug/L)	MW-310 (bg)	-0....	No	No	No	No	Mann-W
Thallium (ug/L)	MW-311 (bg)	-0....	No	No	No	No	Mann-W
Total Dissolved Solids (mg/L)	MW-310 (bg)	-1.88	No	No	No	No	Mann-W
Total Dissolved Solids (mg/L)	MW-311 (bg)	-0....	No	No	No	No	Mann-W
Total Radium (pCi/L)	MW-310 (bg)	-1.047	No	No	No	No	Mann-W
Total Radium (pCi/L)	MW-311 (bg)	-0....	No	No	No	No	Mann-W



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:16 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

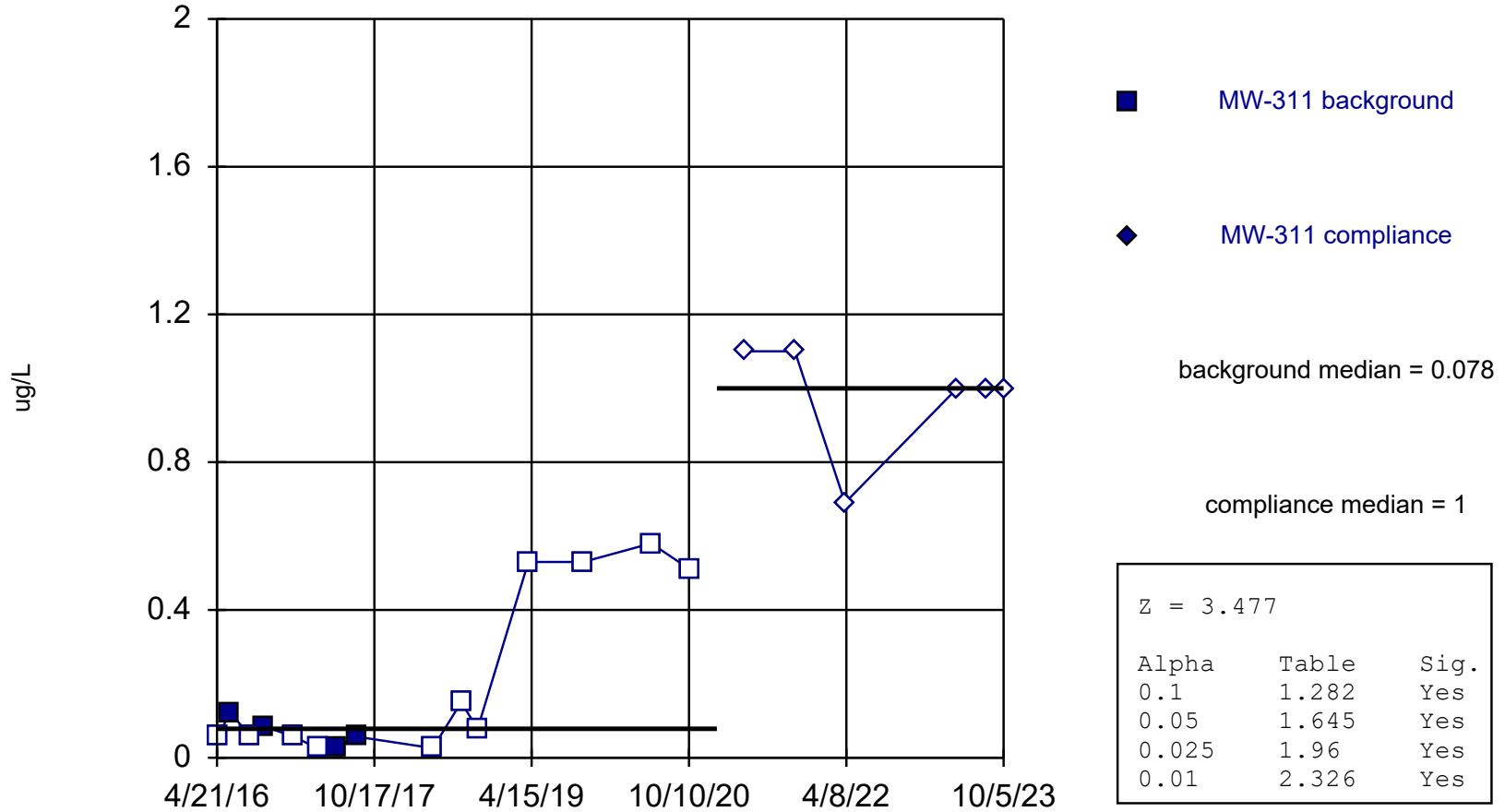
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Antimony (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	<0.058 (U)	
6/7/2016	0.12 (J)	
8/16/2016	<0.058 (U)	
10/3/2016	0.099 (J)	
1/9/2017	<0.058 (U)	
4/4/2017	0.032 (J)	
6/12/2017	0.048 (J)	
8/16/2017	0.1 (J)	
5/8/2018	<0.026 (U)	
8/14/2018	<0.15 (U)	
10/10/2018	<0.078 (U)	
4/4/2019	<0.53 (U)	
10/11/2019	<0.53 (U)	
6/2/2020	<0.58 (U)	
10/14/2020	1.9	
4/19/2021		<1.1 (U)
10/12/2021		<1.1 (U)
4/4/2022		<0.69 (U)
4/27/2023		<1 (U)
8/3/2023		<1 (U)
10/5/2023		<1 (U)

Antimony

MW-311 (bg)

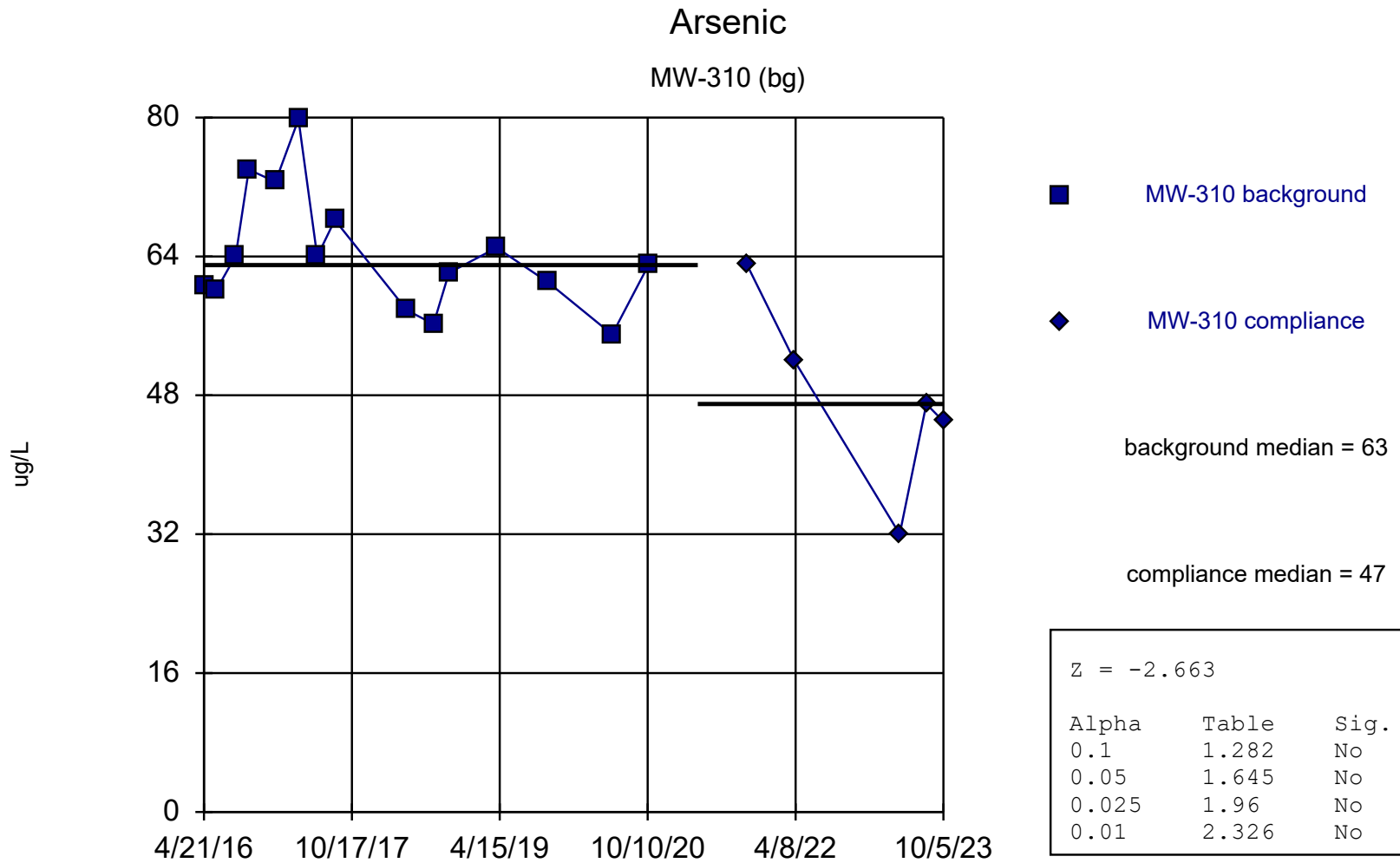


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:16 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Antimony (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	<0.058 (U)	
6/7/2016	0.12 (J)	
8/16/2016	<0.058 (U)	
10/3/2016	0.084 (J)	
1/9/2017	<0.058 (U)	
4/4/2017	<0.026 (U)	
6/12/2017	0.03 (J)	
8/16/2017	0.057 (J)	
5/8/2018	<0.026 (U)	
8/14/2018	<0.15 (U)	
10/10/2018	<0.078 (U)	
4/4/2019	<0.53 (U)	
10/11/2019	<0.53 (U)	
6/2/2020	<0.58 (U)	
10/14/2020	<0.51 (U)	
4/19/2021		<1.1 (U)
10/12/2021		<1.1 (U)
4/4/2022		<0.69 (U)
4/27/2023		<1 (U)
8/3/2023		<1 (U)
10/5/2023		<1 (U)

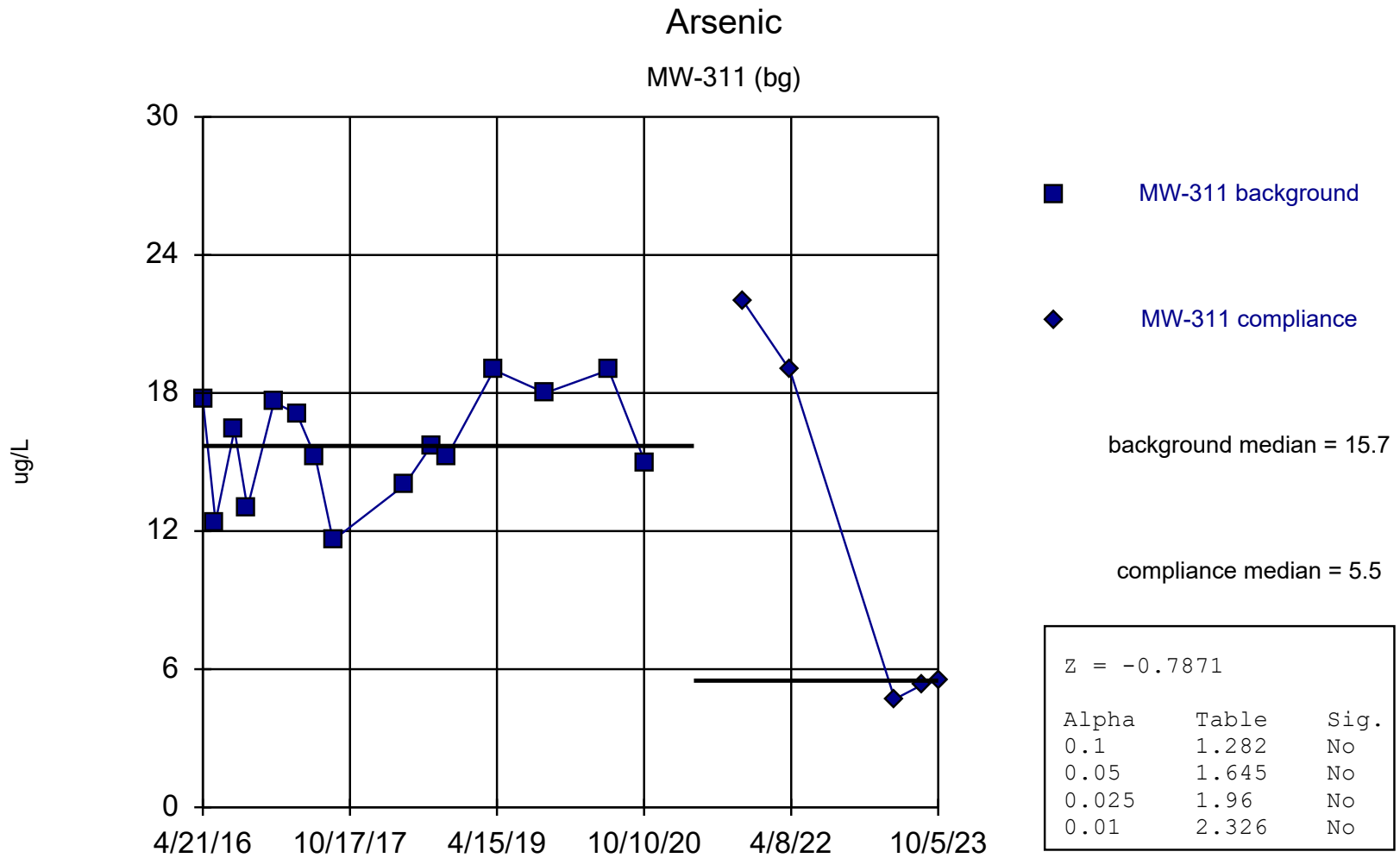


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:16 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Arsenic (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	60.6	
6/7/2016	60.2	
8/16/2016	64.1	
10/3/2016	74	
1/9/2017	72.6	
4/4/2017	79.8	
6/12/2017	64	
8/16/2017	68.2	
5/8/2018	57.8	
8/14/2018	56.2	
10/10/2018	62.1	
4/4/2019	65	
10/11/2019	61	
6/2/2020	55	
10/14/2020	63	
4/19/2021	16 (X)	
10/12/2021		63
4/4/2022		52
4/27/2023		32
8/3/2023		47
10/5/2023		45



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:16 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

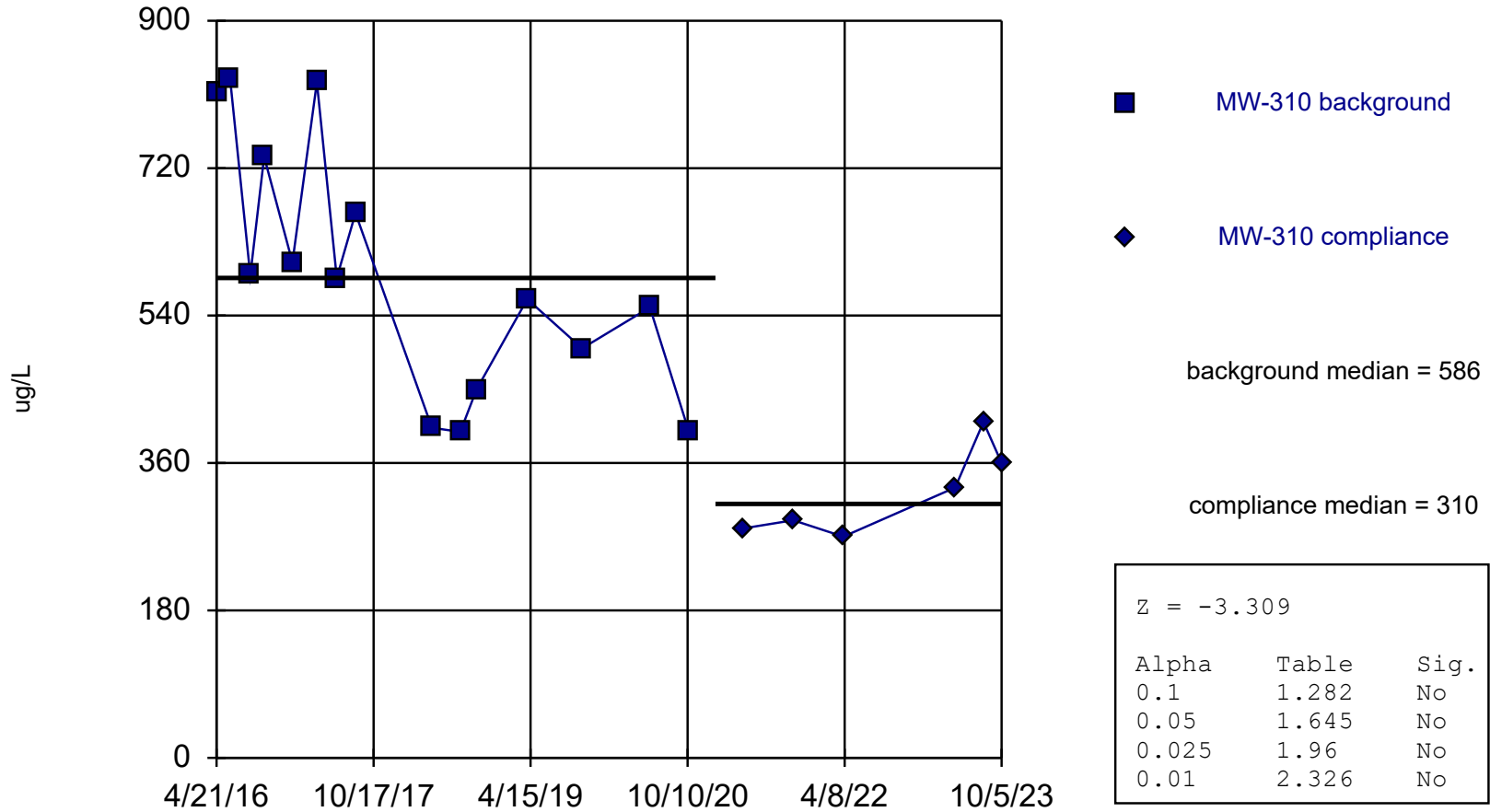
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Arsenic (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	17.7	
6/7/2016	12.4	
8/16/2016	16.4	
10/3/2016	13	
1/9/2017	17.6	
4/4/2017	17.1	
6/12/2017	15.2	
8/16/2017	11.6	
5/8/2018	14	
8/14/2018	15.7	
10/10/2018	15.2	
4/4/2019	19	
10/11/2019	18	
6/2/2020	19	
10/14/2020	15	
4/19/2021	55 (X)	
10/12/2021		22
4/4/2022		19
4/27/2023		4.7
8/3/2023		5.3
10/5/2023		5.5

Barium

MW-310 (bg)

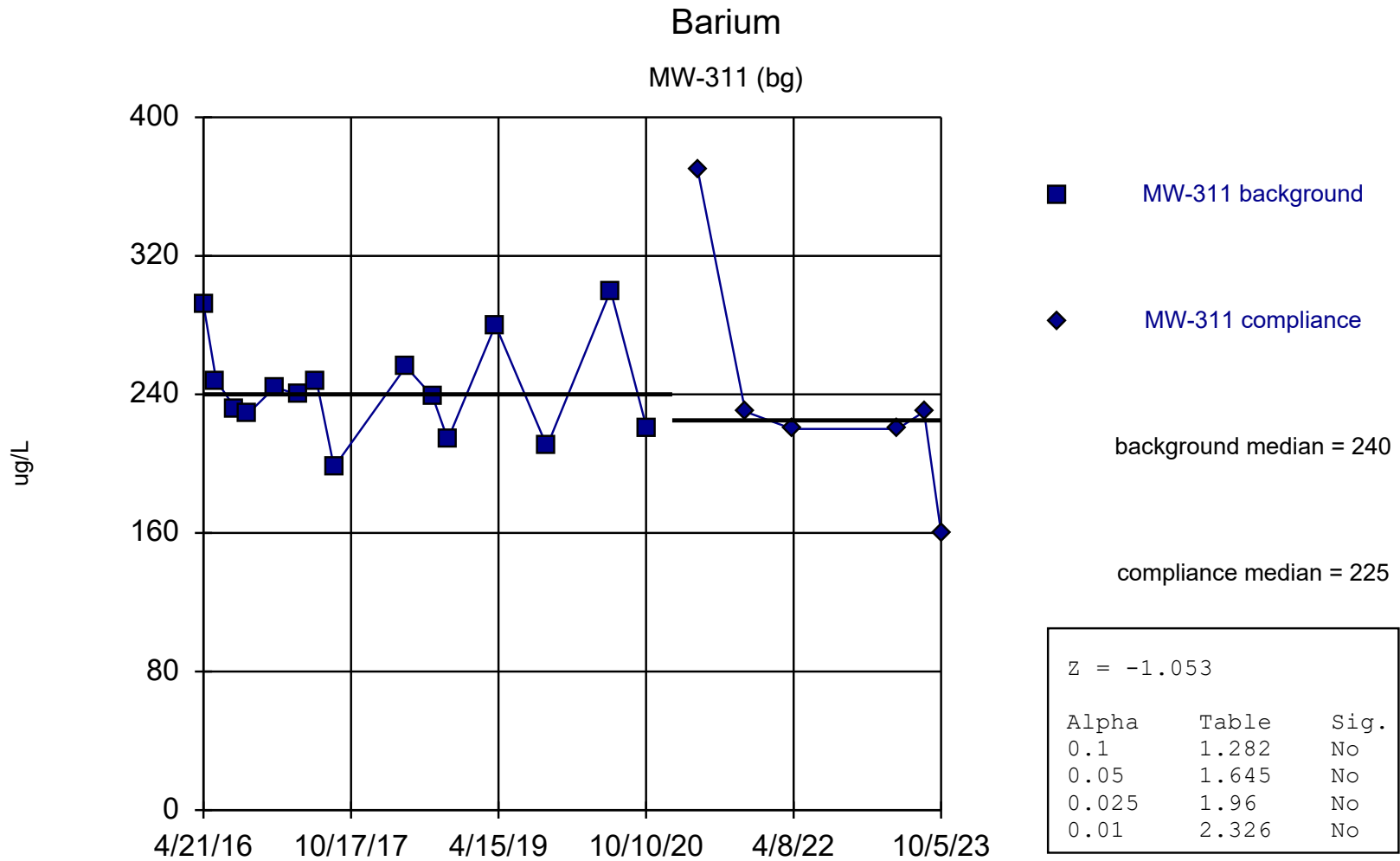


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:16 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Barium (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	813	
6/7/2016	829	
8/16/2016	589	
10/3/2016	734	
1/9/2017	605	
4/4/2017	825	
6/12/2017	586	
8/16/2017	665	
5/8/2018	403	
8/14/2018	398	
10/10/2018	450	
4/4/2019	560	
10/11/2019	500	
6/2/2020	550	
10/14/2020	400	
4/19/2021		280
10/12/2021		290
4/4/2022		270
4/27/2023		330
8/3/2023		410
10/5/2023		360

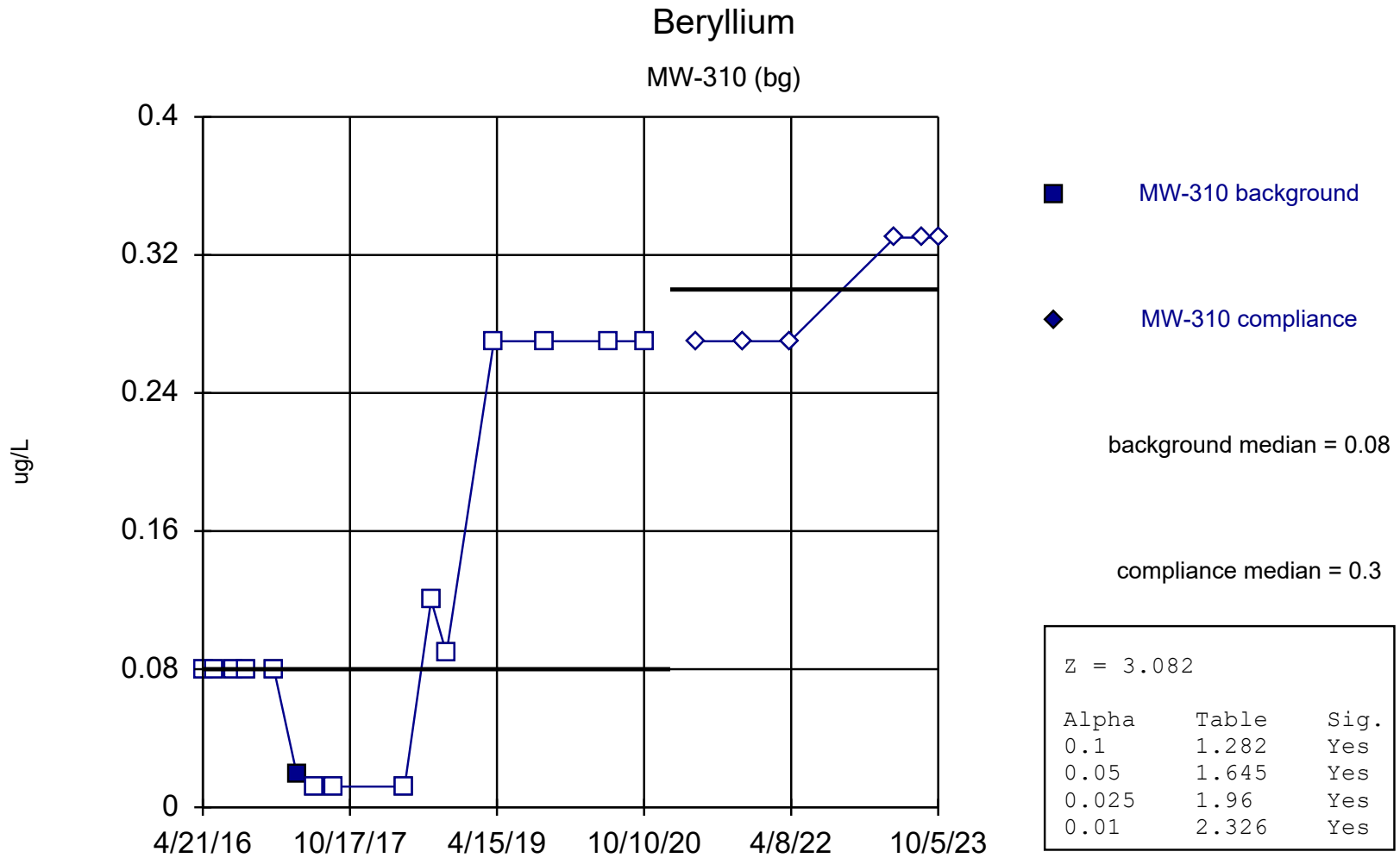


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:16 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Barium (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	292	
6/7/2016	248	
8/16/2016	232	
10/3/2016	229	
1/9/2017	244	
4/4/2017	240	
6/12/2017	248	
8/16/2017	198	
5/8/2018	256	
8/14/2018	239	
10/10/2018	214	
4/4/2019	280	
10/11/2019	210	
6/2/2020	300	
10/14/2020	220	
4/19/2021		370
10/12/2021		230
4/4/2022		220
4/27/2023		220
8/3/2023		230
10/5/2023		160

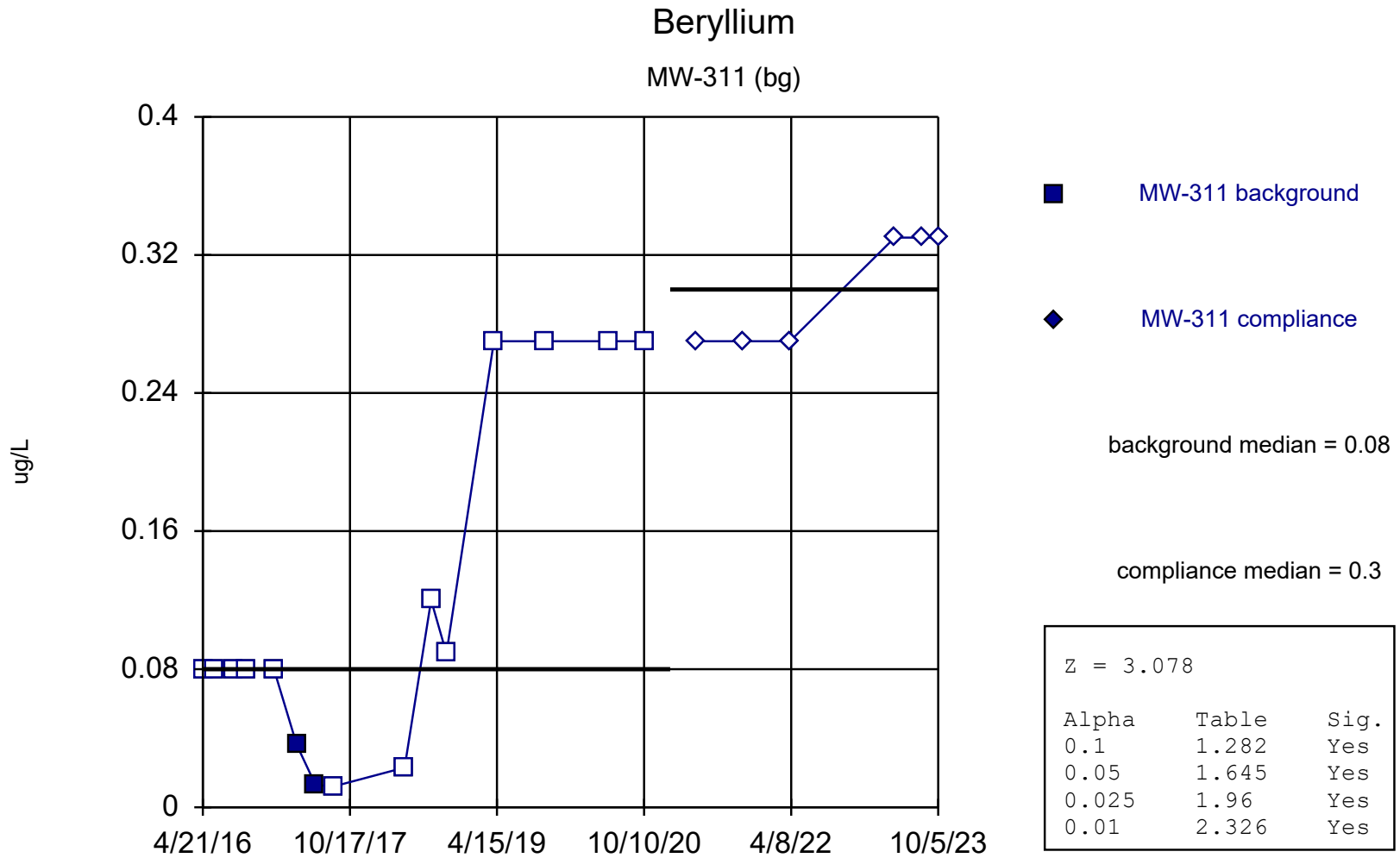


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:16 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Beryllium (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	<0.08 (U)	
6/7/2016	<0.08 (U)	
8/16/2016	<0.08 (U)	
10/3/2016	<0.08 (U)	
1/9/2017	<0.08 (U)	
4/4/2017	0.019 (J)	
6/12/2017	<0.012 (U)	
8/16/2017	<0.012 (U)	
5/8/2018	<0.012 (U)	
8/14/2018	<0.12 (U)	
10/10/2018	<0.089 (U)	
4/4/2019	<0.27 (U)	
10/11/2019	<0.27 (U)	
6/2/2020	<0.27 (U)	
10/14/2020	<0.27 (U)	
4/19/2021		<0.27 (U)
10/12/2021		<0.27 (U)
4/4/2022		<0.27 (U)
4/27/2023		<0.33 (U)
8/3/2023		<0.33 (U)
10/5/2023		<0.33 (U)

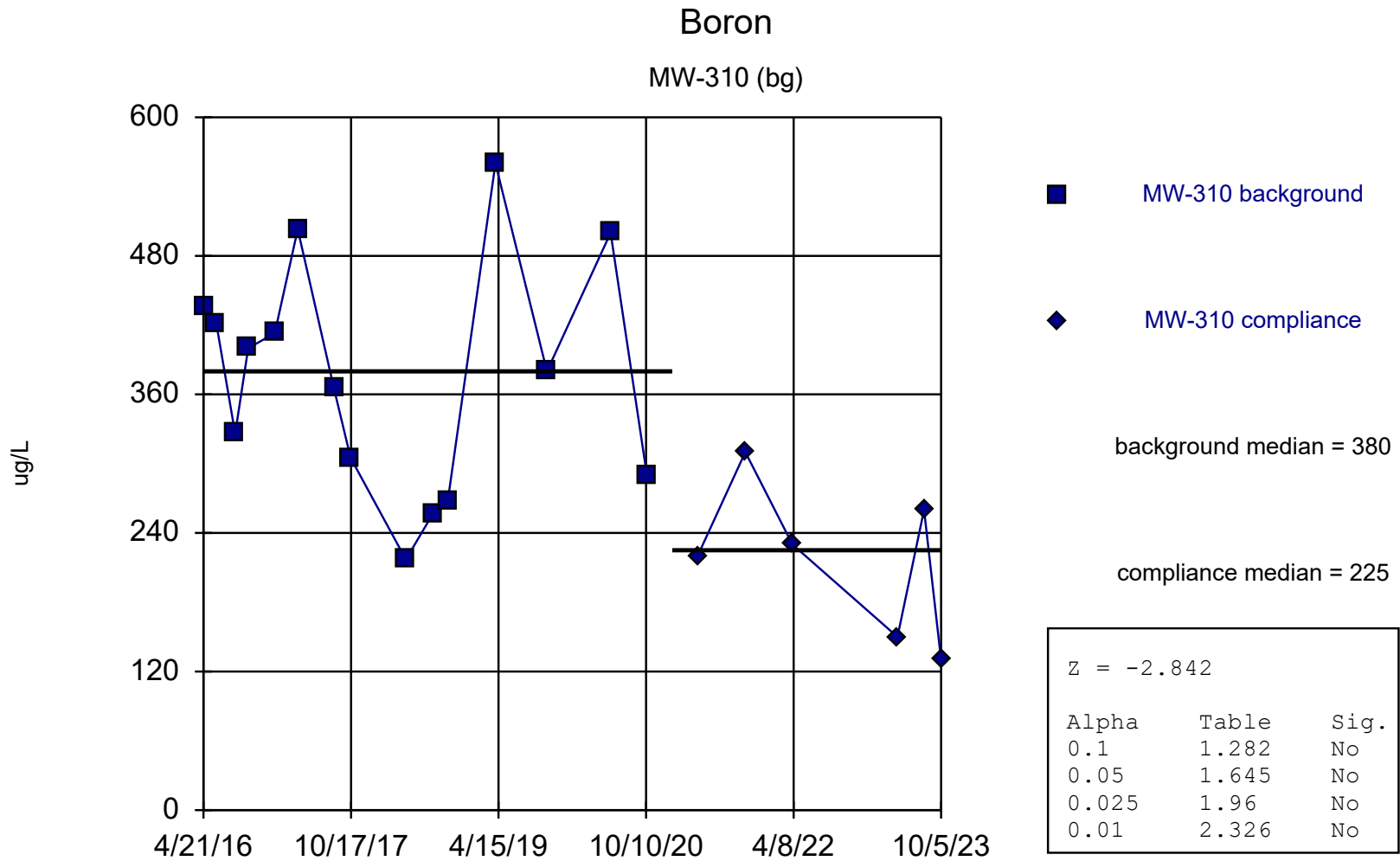


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Beryllium (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	<0.08 (U)	
6/7/2016	<0.08 (U)	
8/16/2016	<0.08 (U)	
10/3/2016	<0.08 (U)	
1/9/2017	<0.08 (U)	
4/4/2017	0.036 (J)	
6/12/2017	0.013 (J)	
8/16/2017	<0.012 (U)	
5/8/2018	<0.023 (U)	
8/14/2018	<0.12 (U)	
10/10/2018	<0.089 (U)	
4/4/2019	<0.27 (U)	
10/11/2019	<0.27 (U)	
6/2/2020	<0.27 (U)	
10/14/2020	<0.27 (U)	
4/19/2021		<0.27 (U)
10/12/2021		<0.27 (U)
4/4/2022		<0.27 (U)
4/27/2023		<0.33 (U)
8/3/2023		<0.33 (U)
10/5/2023		<0.33 (U)

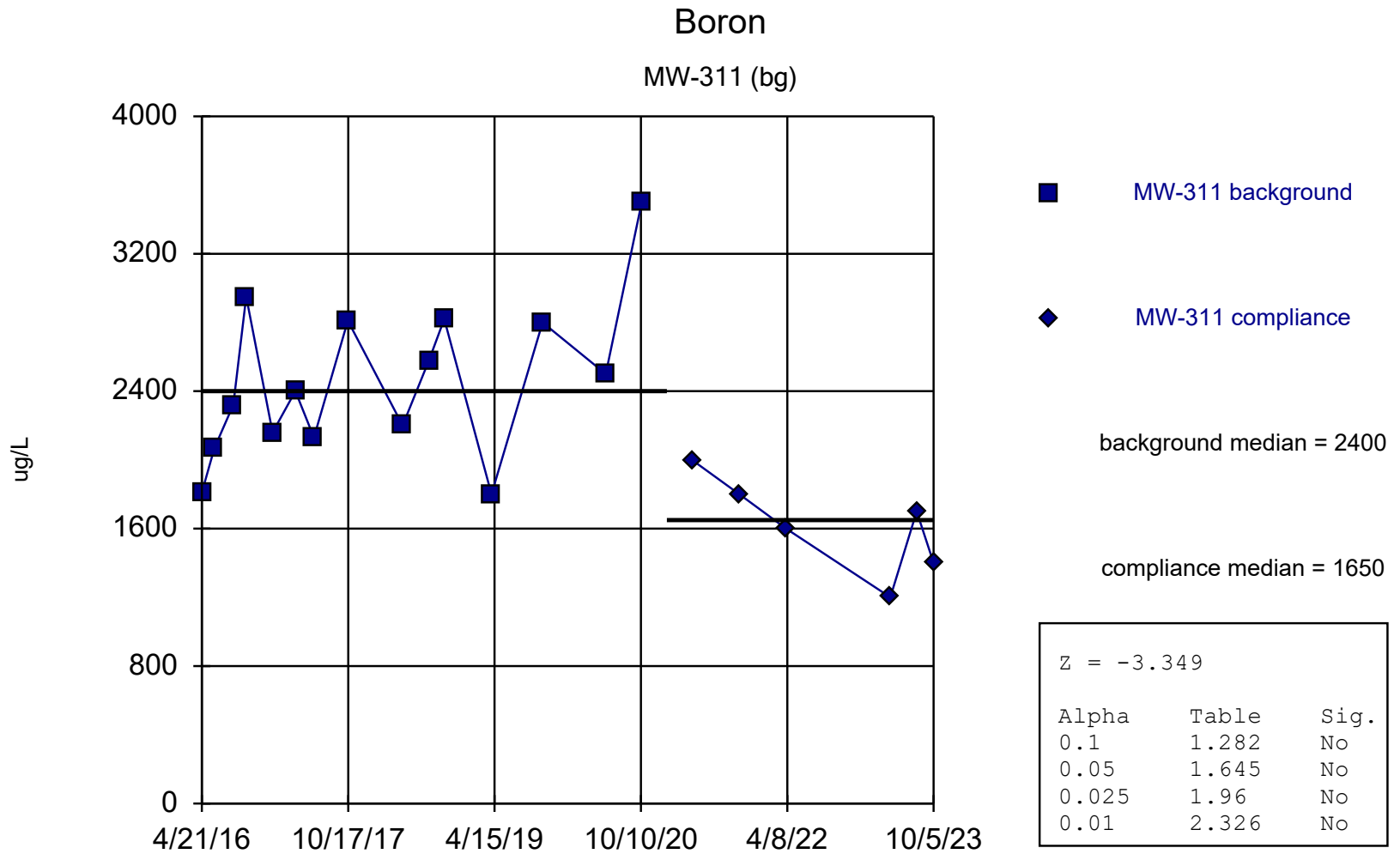


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Boron (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	437	
6/7/2016	422	
8/16/2016	326	
10/3/2016	400	
1/9/2017	413	
4/4/2017	503	
6/12/2017	2210 (X)	
8/16/2017	365	
10/16/2017	305	
5/8/2018	217	
8/14/2018	256	
10/10/2018	268	
4/4/2019	560	
10/11/2019	380	
6/2/2020	500	
10/14/2020	290	
4/19/2021		220
10/12/2021		310
4/4/2022		230
4/27/2023		150
8/3/2023		260
10/5/2023		130



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

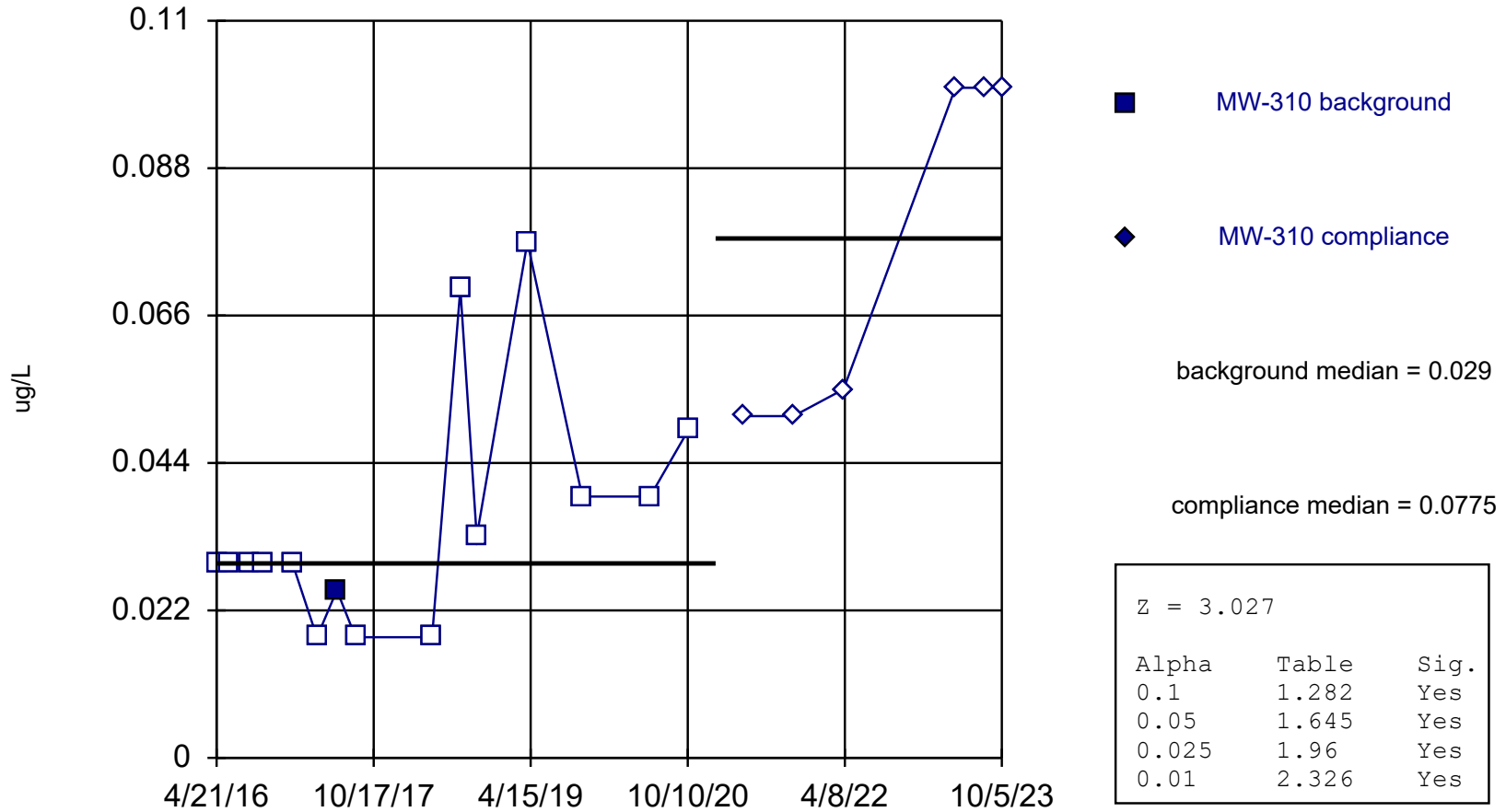
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Boron (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	1810	
6/7/2016	2070	
8/16/2016	2320	
10/3/2016	2950	
1/9/2017	2160	
4/4/2017	2400	
6/12/2017	2130	
8/16/2017	360 (X)	
10/16/2017	2810	
5/8/2018	2200	
8/14/2018	2580	
10/10/2018	2820	
4/4/2019	1800	
10/11/2019	2800	
6/2/2020	2500	
10/14/2020	3500	
4/19/2021		2000
10/12/2021		1800
4/4/2022		1600
4/27/2023		1200
8/3/2023		1700
10/5/2023		1400

Cadmium

MW-310 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

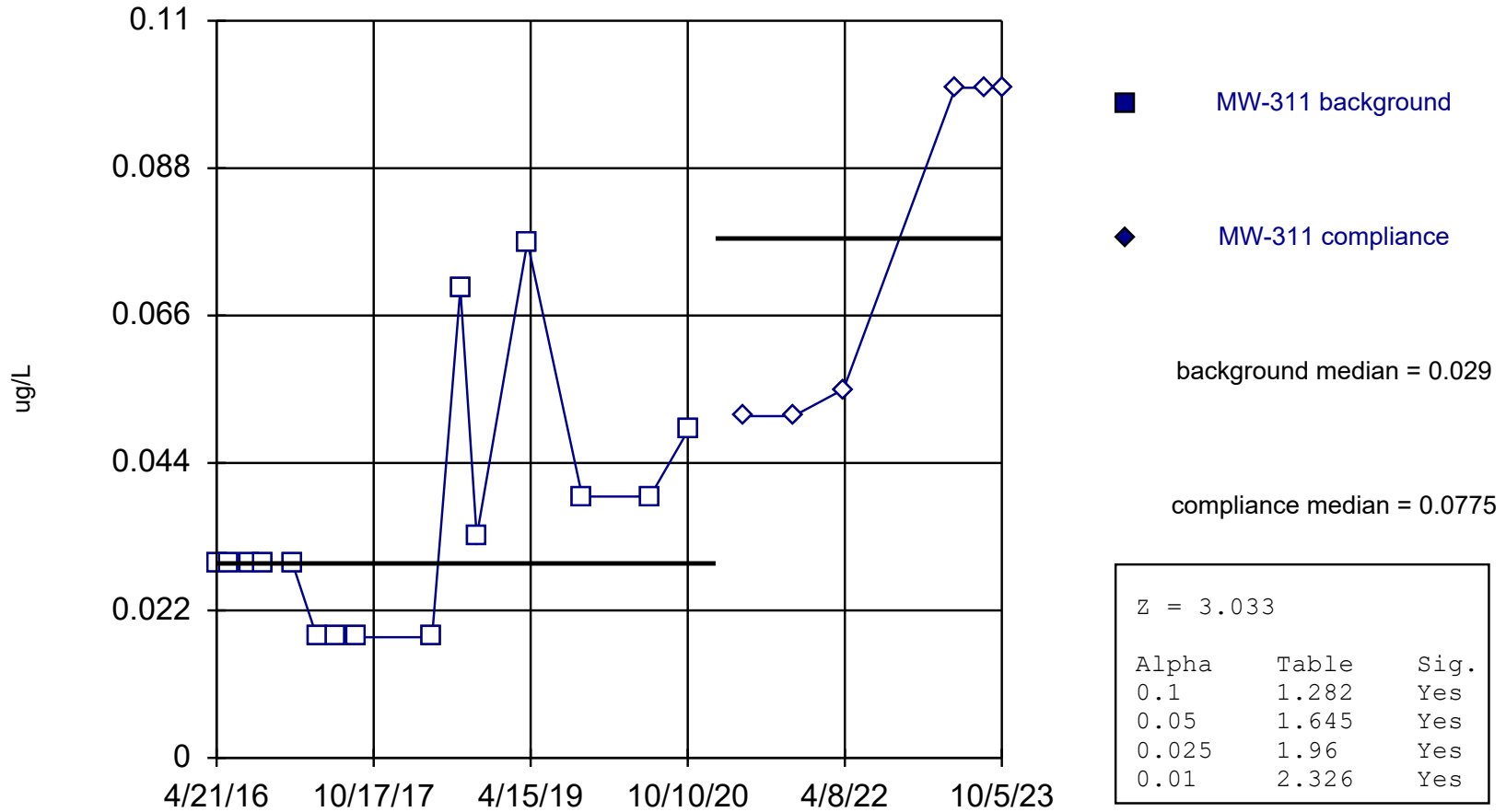
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Cadmium (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	<0.029 (U)	
6/7/2016	<0.029 (U)	
8/16/2016	<0.029 (U)	
10/3/2016	<0.029 (U)	
1/9/2017	<0.029 (U)	
4/4/2017	<0.018 (U)	
6/12/2017	0.025 (J)	
8/16/2017	<0.018 (U)	
5/8/2018	<0.018 (U)	
8/14/2018	<0.07 (U)	
10/10/2018	<0.033 (U)	
4/4/2019	<0.077 (U)	
10/11/2019	<0.039 (U)	
6/2/2020	<0.039 (U)	
10/14/2020	<0.049 (U)	
4/19/2021		<0.051 (U)
10/12/2021		<0.051 (U)
4/4/2022		<0.055 (U)
4/27/2023		<0.1 (U)
8/3/2023		<0.1 (U)
10/5/2023		<0.1 (U)

Cadmium

MW-311 (bg)

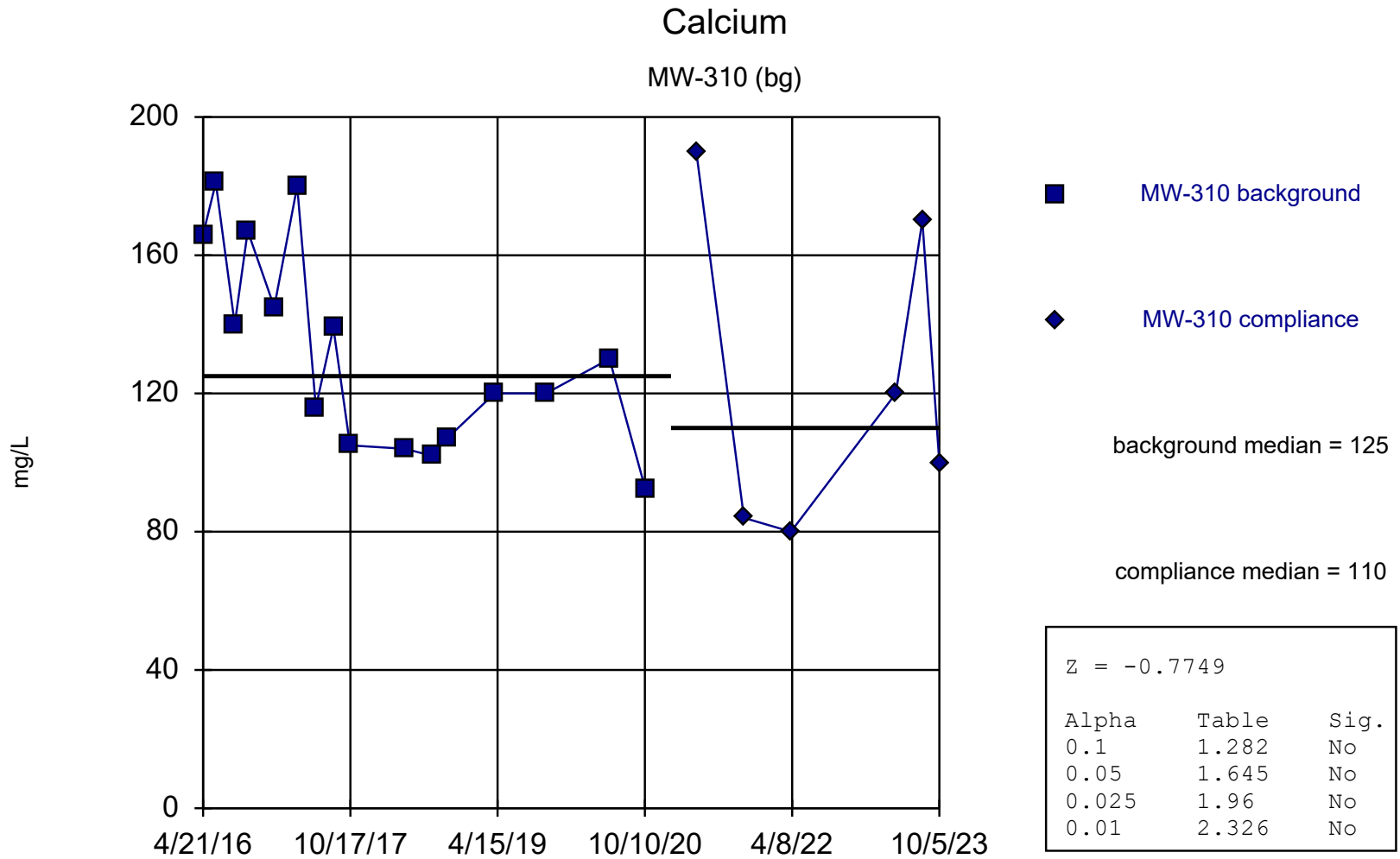


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Cadmium (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	<0.029 (U)	
6/7/2016	<0.029 (U)	
8/16/2016	<0.029 (U)	
10/3/2016	<0.029 (U)	
1/9/2017	<0.029 (U)	
4/4/2017	<0.018 (U)	
6/12/2017	<0.018 (U)	
8/16/2017	<0.018 (U)	
5/8/2018	<0.018 (U)	
8/14/2018	<0.07 (U)	
10/10/2018	<0.033 (U)	
4/4/2019	<0.077 (U)	
10/11/2019	<0.039 (U)	
6/2/2020	<0.039 (U)	
10/14/2020	<0.049 (U)	
4/19/2021		<0.051 (U)
10/12/2021		<0.051 (U)
4/4/2022		<0.055 (U)
4/27/2023		<0.1 (U)
8/3/2023		<0.1 (U)
10/5/2023		<0.1 (U)

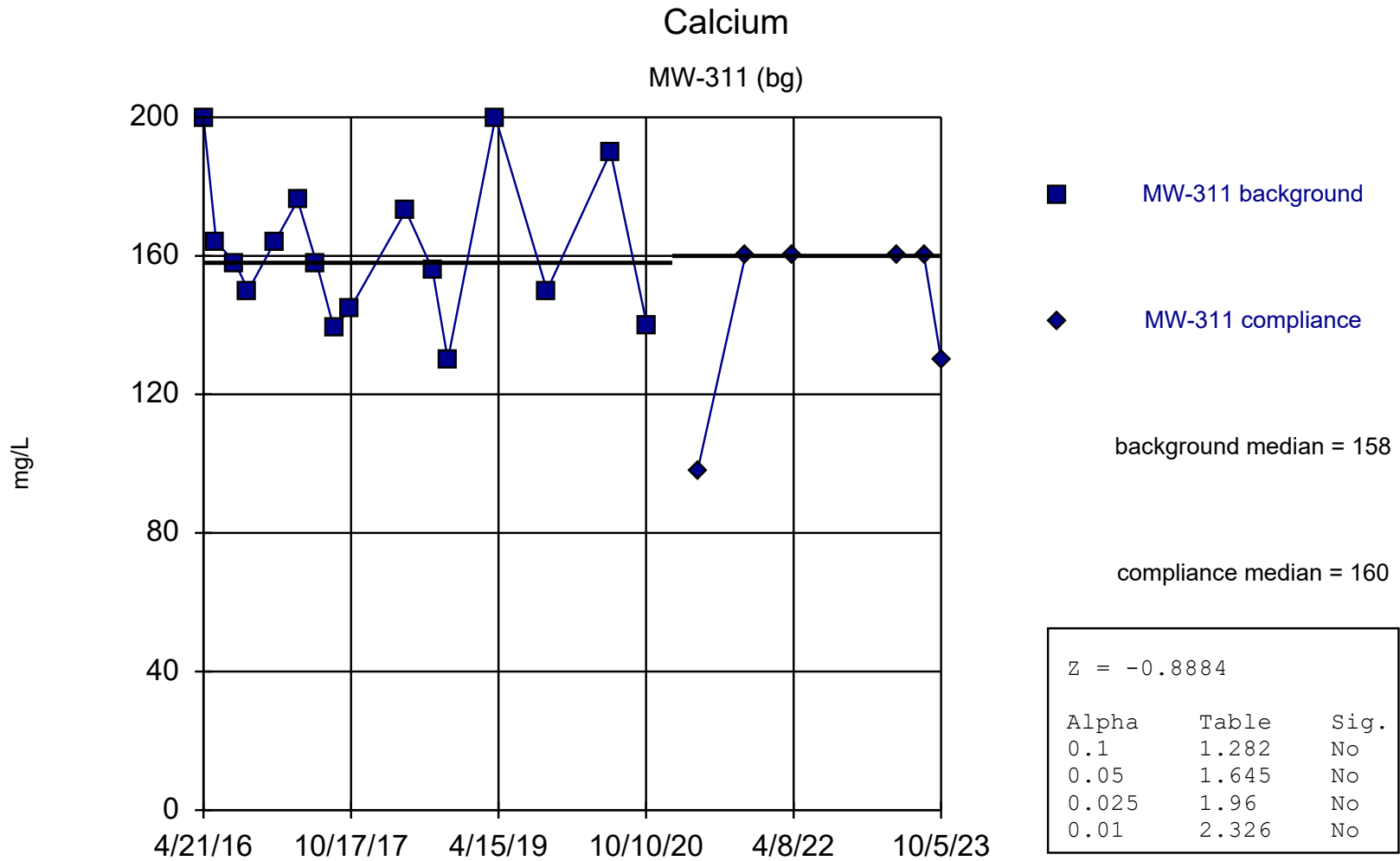


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Calcium (mg/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	166	
6/7/2016	181	
8/16/2016	140	
10/3/2016	167	
1/9/2017	145	
4/4/2017	180	
6/12/2017	116	
8/16/2017	139	
10/16/2017	105	
5/8/2018	104	
8/14/2018	102	
10/10/2018	107	
4/4/2019	120	
10/11/2019	120	
6/2/2020	130	
10/14/2020	92	
4/19/2021		190
10/12/2021		84
4/4/2022		80
4/27/2023		120
8/3/2023		170
10/5/2023		100



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

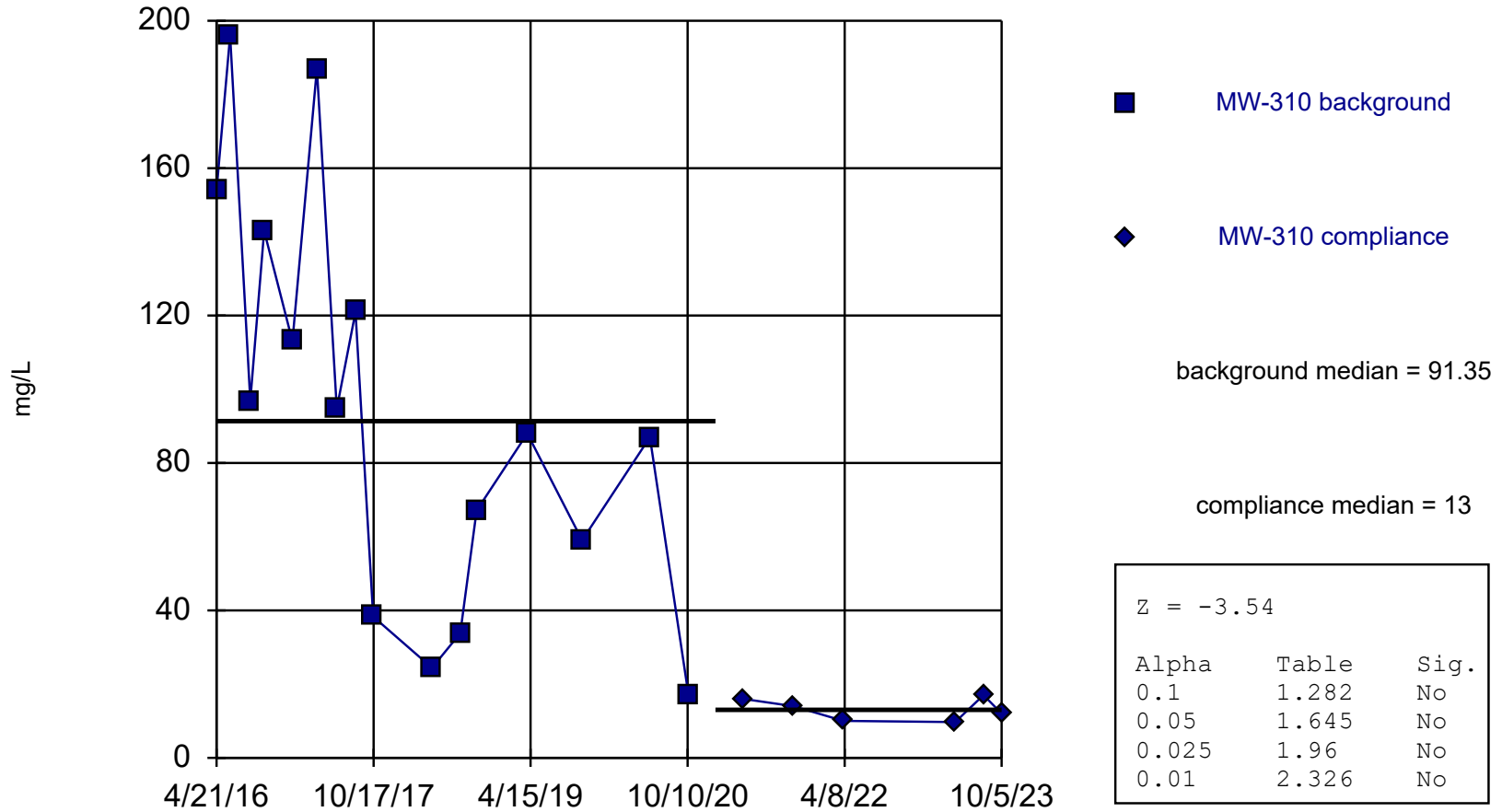
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Calcium (mg/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	200	
6/7/2016	164	
8/16/2016	158	
10/3/2016	150	
1/9/2017	164	
4/4/2017	176	
6/12/2017	158	
8/16/2017	139	
10/16/2017	145	
5/8/2018	173	
8/14/2018	156	
10/10/2018	130	
4/4/2019	200	
10/11/2019	150	
6/2/2020	190	
10/14/2020	140	
4/19/2021		98
10/12/2021		160
4/4/2022		160
4/27/2023		160
8/3/2023		160
10/5/2023		130

Chloride

MW-310 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

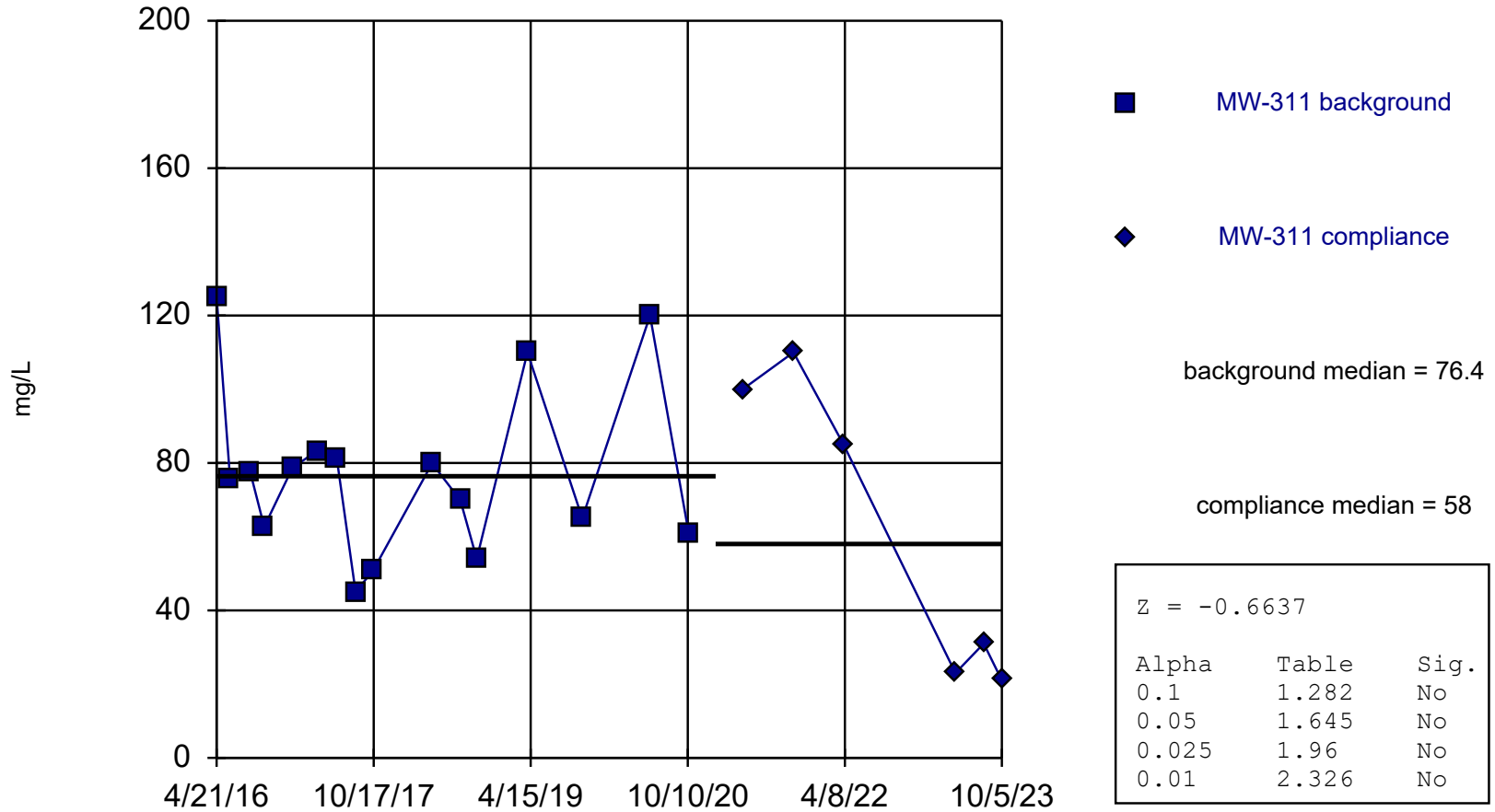
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chloride (mg/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	154	
6/7/2016	196	
8/16/2016	96.9	
10/3/2016	143	
1/9/2017	113	
4/4/2017	187	
6/12/2017	94.7	
8/16/2017	121	
10/16/2017	38.3	
5/8/2018	24.4	
8/14/2018	33.8	
10/10/2018	67.1	
4/4/2019	88	
10/11/2019	59	
6/2/2020	87	
10/14/2020	17	
4/19/2021		16
10/12/2021		14
4/4/2022		10
4/27/2023		9.7
8/3/2023		17
10/5/2023		12

Chloride

MW-311 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

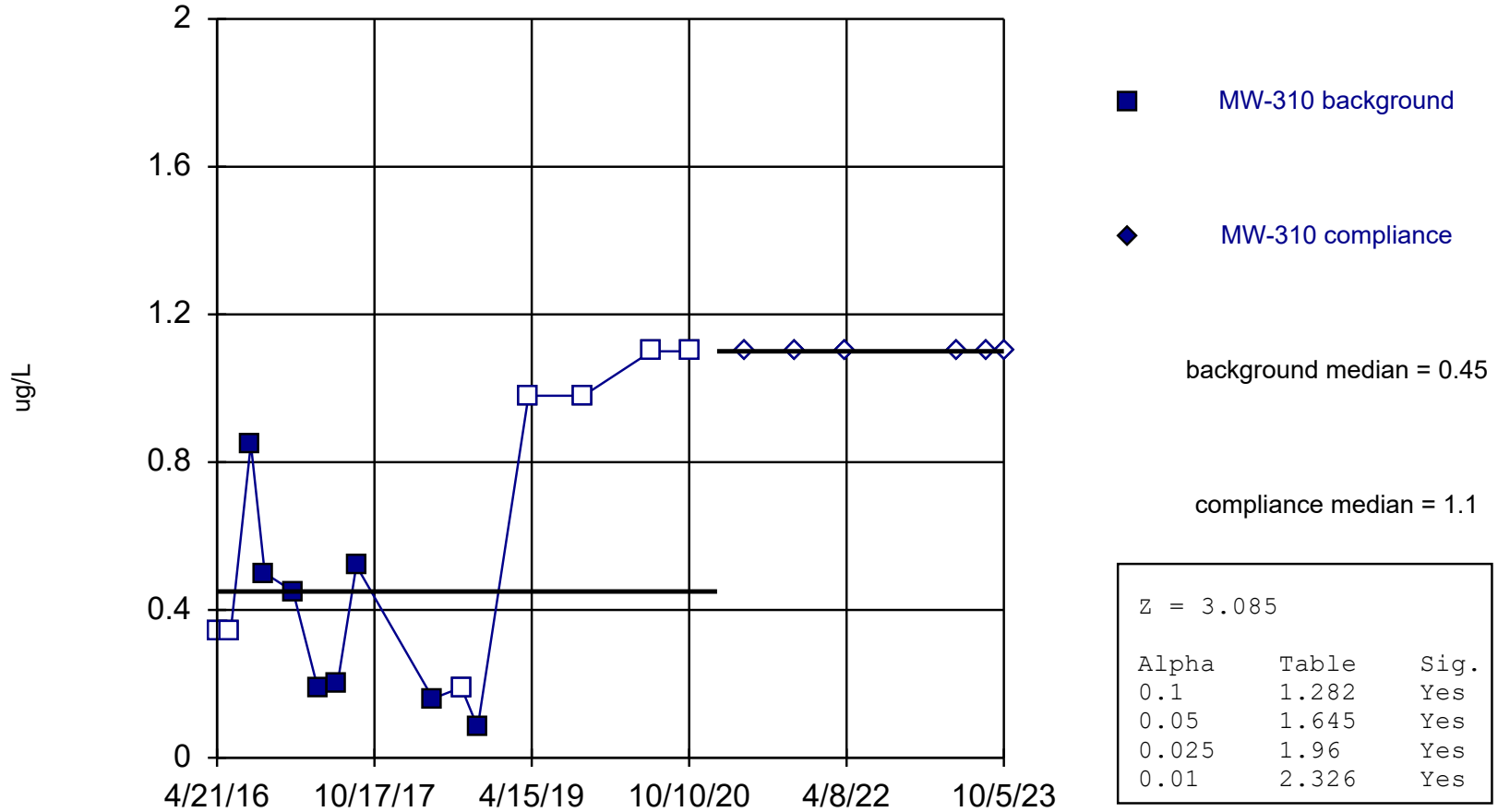
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chloride (mg/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	125	
6/7/2016	75.4	
8/16/2016	77.4	
10/3/2016	62.7	
1/9/2017	78.7	
4/4/2017	83.3	
6/12/2017	81.1	
8/16/2017	45	
10/16/2017	50.9	
5/8/2018	79.9	
8/14/2018	69.9	
10/10/2018	54	
4/4/2019	110	
10/11/2019	65	
6/2/2020	120	
10/14/2020	61	
4/19/2021		100
10/12/2021		110
4/4/2022		85
4/27/2023		23
8/3/2023		31
10/5/2023		21

Chromium

MW-310 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

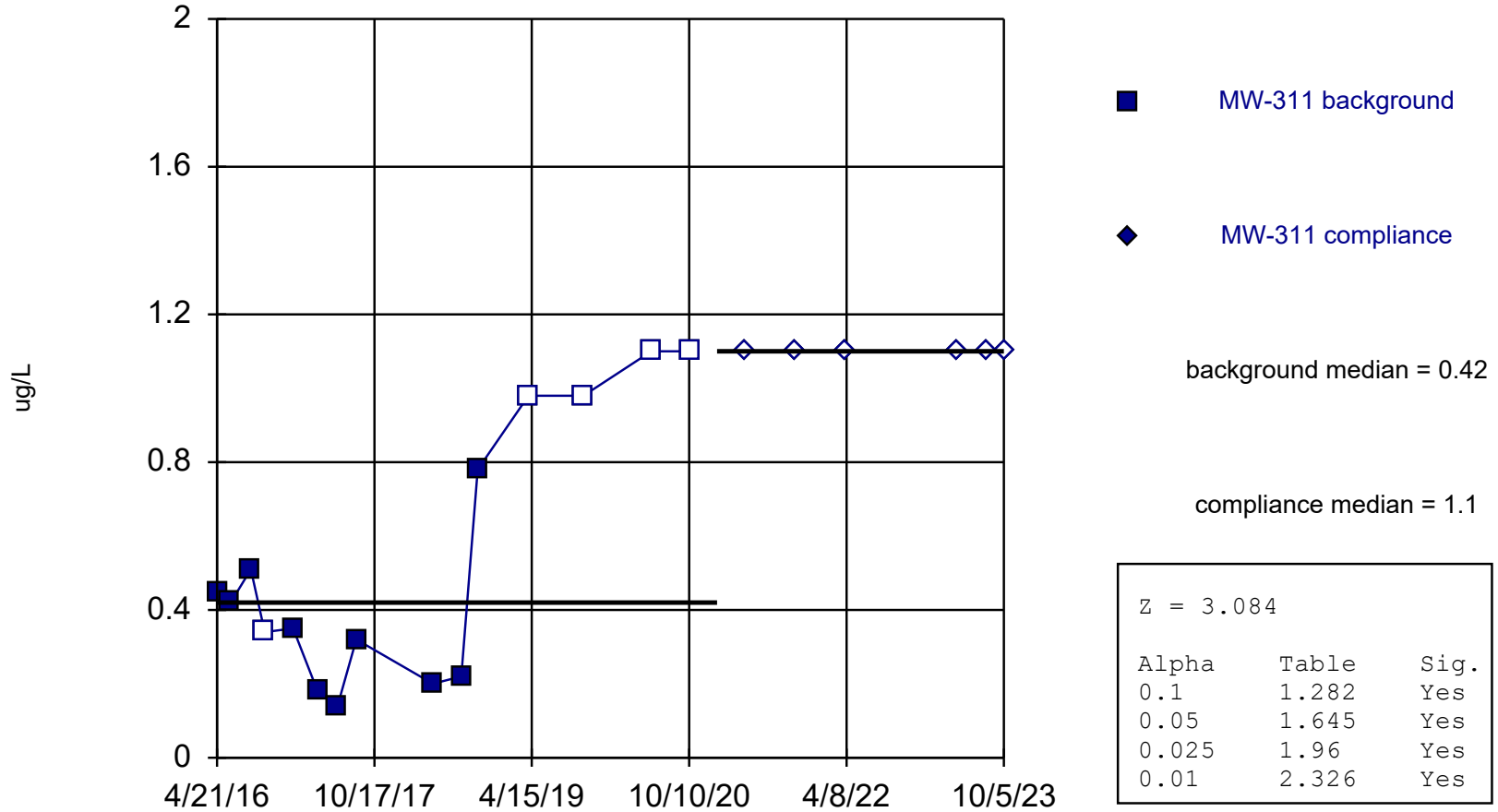
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chromium (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	<0.34 (U)	
6/7/2016	<0.34 (U)	
8/16/2016	0.85 (J)	
10/3/2016	0.5 (J)	
1/9/2017	0.45 (J)	
4/4/2017	0.19 (J)	
6/12/2017	0.2 (J)	
8/16/2017	0.52 (J)	
5/8/2018	0.16 (J)	
8/14/2018	<0.19 (U)	
10/10/2018	0.082 (J)	
4/4/2019	<0.98 (U)	
10/11/2019	<0.98 (U)	
6/2/2020	<1.1 (U)	
10/14/2020	<1.1 (U)	
4/19/2021		<1.1 (U)
10/12/2021		<1.1 (U)
4/4/2022		<1.1 (U)
4/27/2023		<1.1 (U)
8/3/2023		<1.1 (U)
10/5/2023		<1.1 (U)

Chromium

MW-311 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

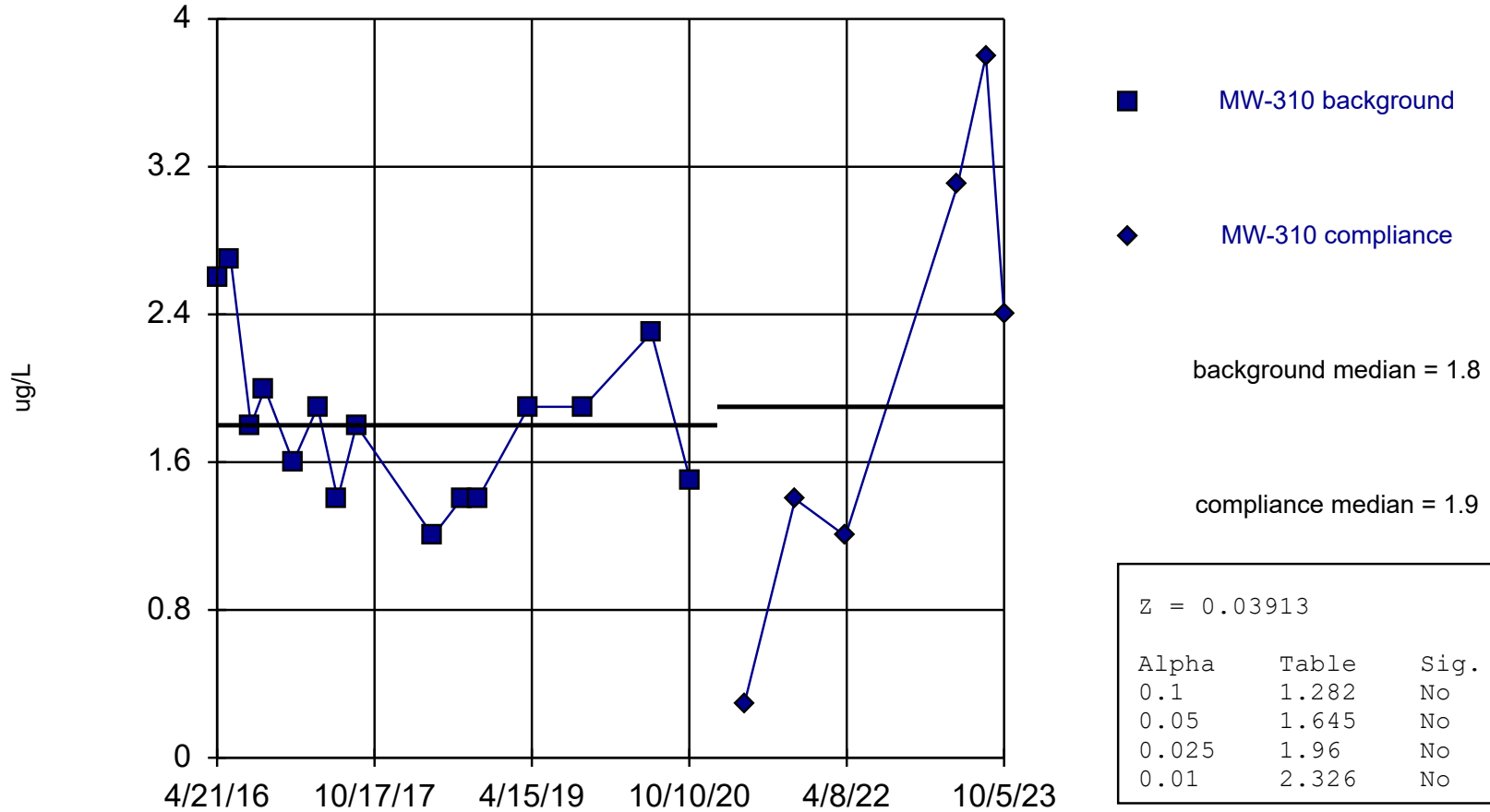
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chromium (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	0.45 (J)	
6/7/2016	0.42 (J)	
8/16/2016	0.51 (J)	
10/3/2016	<0.34 (U)	
1/9/2017	0.35 (J)	
4/4/2017	0.18 (J)	
6/12/2017	0.14 (J)	
8/16/2017	0.32 (J)	
5/8/2018	0.2 (J)	
8/14/2018	0.22 (J)	
10/10/2018	0.78 (J)	
4/4/2019	<0.98 (U)	
10/11/2019	<0.98 (U)	
6/2/2020	<1.1 (U)	
10/14/2020	<1.1 (U)	
4/19/2021		<1.1 (U)
10/12/2021		<1.1 (U)
4/4/2022		<1.1 (U)
4/27/2023		<1.1 (U)
8/3/2023		<1.1 (U)
10/5/2023		<1.1 (U)

Cobalt

MW-310 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

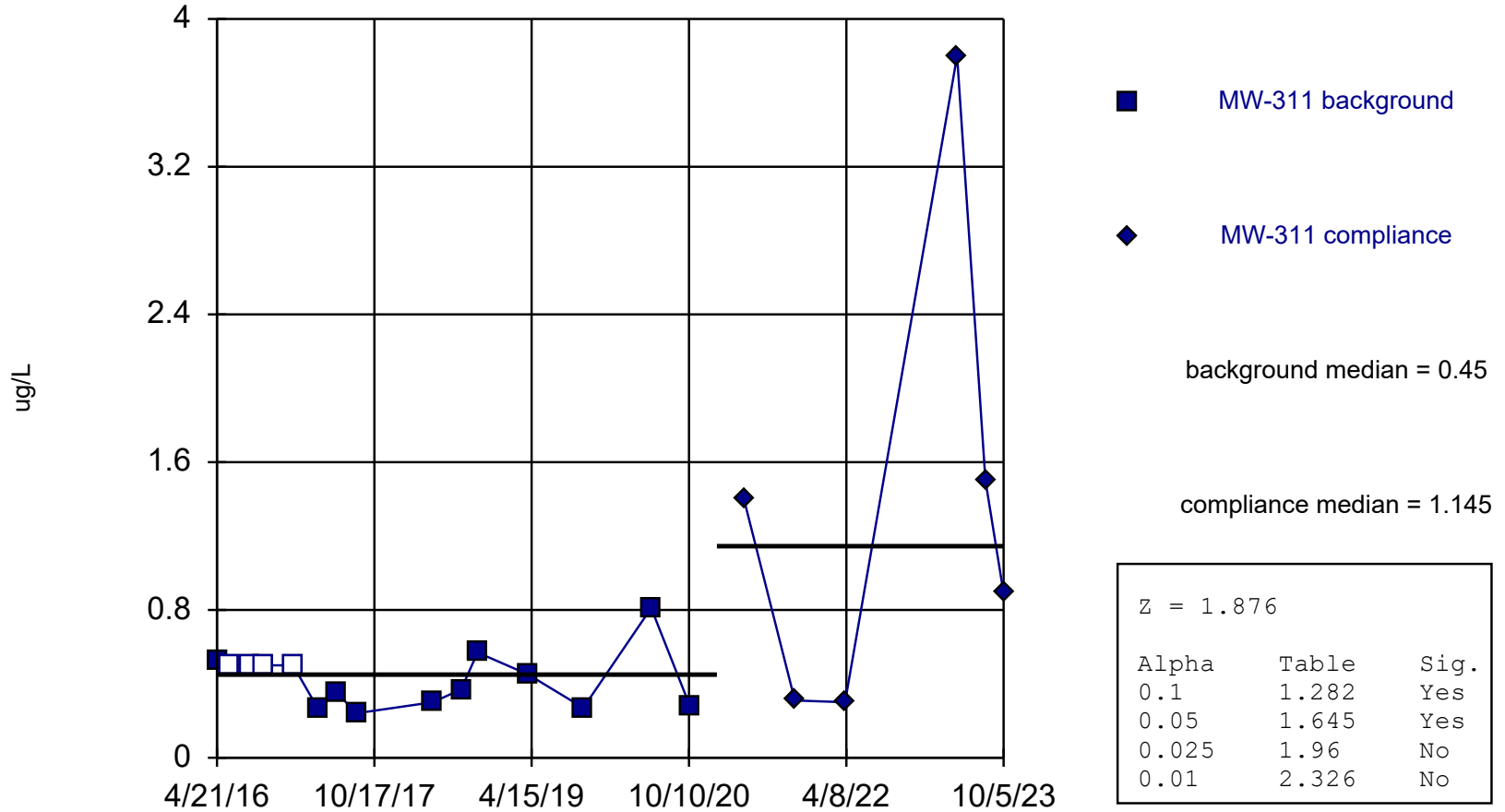
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Cobalt (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	2.6	
6/7/2016	2.7	
8/16/2016	1.8	
10/3/2016	2	
1/9/2017	1.6	
4/4/2017	1.9	
6/12/2017	1.4	
8/16/2017	1.8	
5/8/2018	1.2	
8/14/2018	1.4	
10/10/2018	1.4	
4/4/2019	1.9	
10/11/2019	1.9	
6/2/2020	2.3	
10/14/2020	1.5	
4/19/2021		0.29 (J)
10/12/2021		1.4
4/4/2022		1.2
4/27/2023		3.1
8/3/2023		3.8
10/5/2023		2.4

Cobalt

MW-311 (bg)

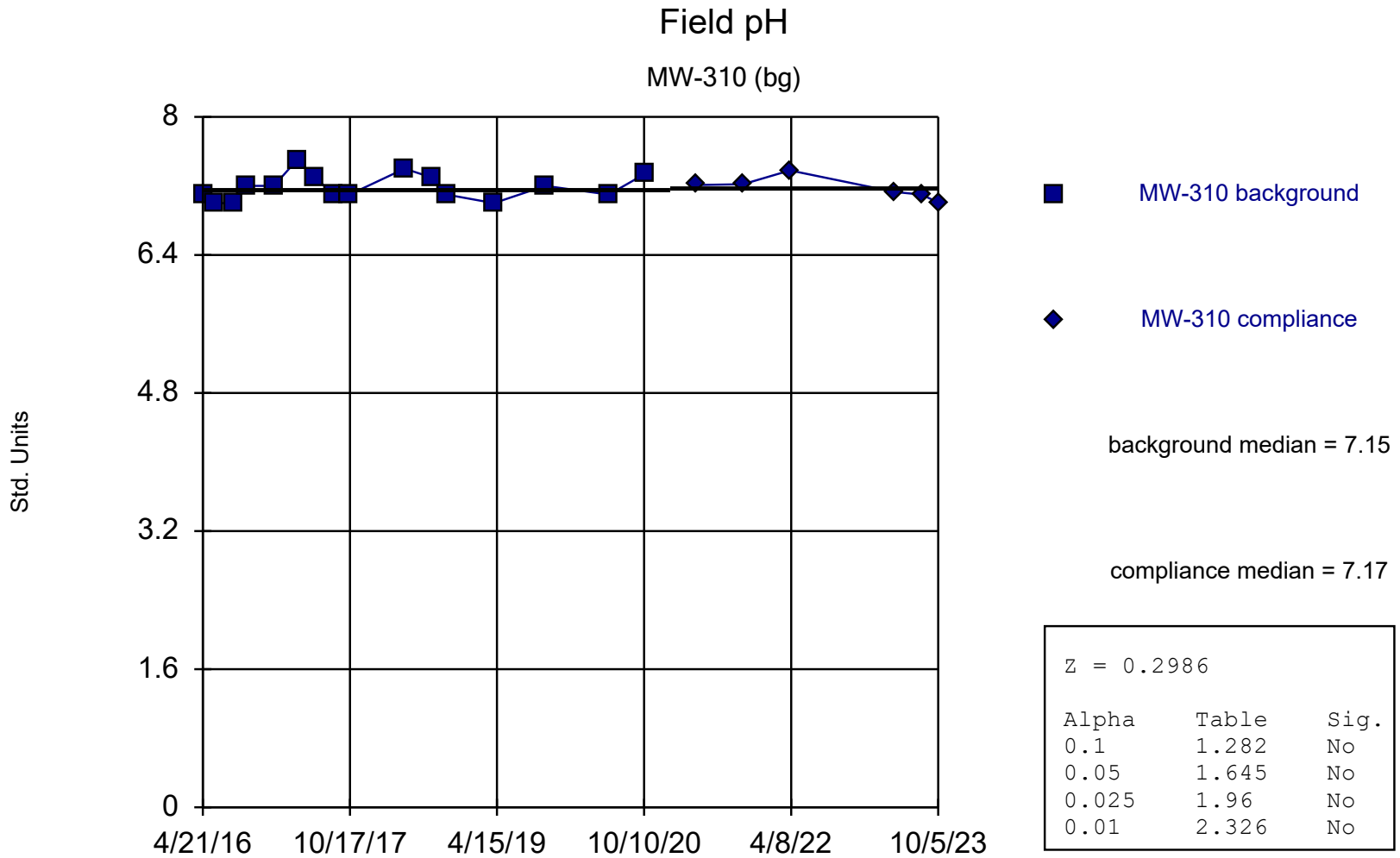


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Cobalt (ug/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	0.52 (J)	
6/7/2016	<0.5 (U)	
8/16/2016	<0.5 (U)	
10/3/2016	<0.5 (U)	
1/9/2017	<0.5 (U)	
4/4/2017	0.27 (J)	
6/12/2017	0.35 (J)	
8/16/2017	0.24 (J)	
5/8/2018	0.3 (J)	
8/14/2018	0.37 (J)	
10/10/2018	0.57 (J)	
4/4/2019	0.45 (J)	
10/11/2019	0.27 (J)	
6/2/2020	0.81	
10/14/2020	0.28 (J)	
4/19/2021		1.4
10/12/2021		0.31 (J)
4/4/2022		0.3 (J)
4/27/2023		3.8
8/3/2023		1.5
10/5/2023		0.89

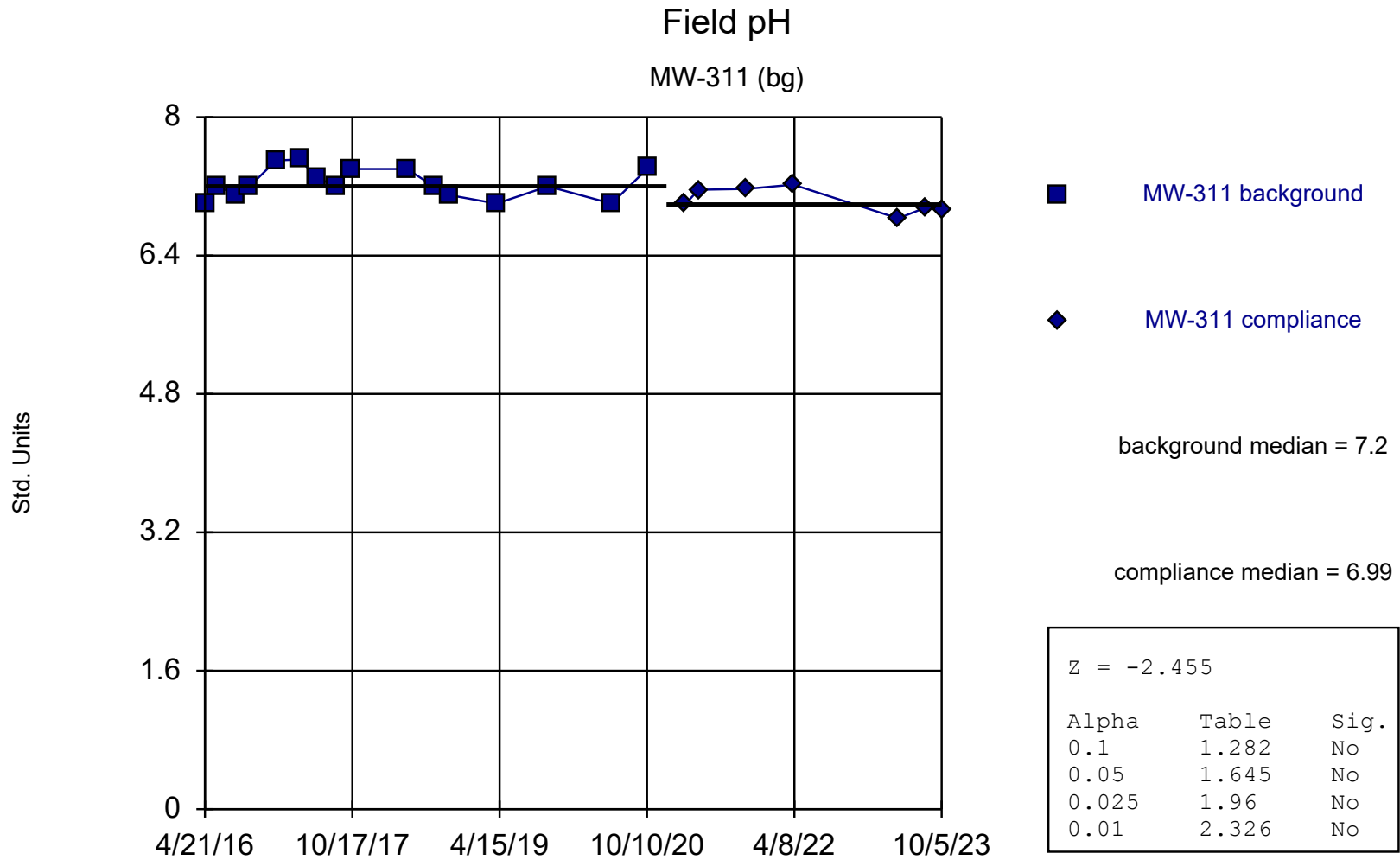


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Field pH (Std. Units) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	7.1	
6/7/2016	7	
8/16/2016	7	
10/3/2016	7.2	
1/9/2017	7.2	
4/4/2017	7.5	
6/12/2017	7.3	
8/16/2017	7.1	
10/16/2017	7.1	
5/8/2018	7.4	
8/14/2018	7.3	
10/10/2018	7.1	
4/4/2019	7	
10/11/2019	7.2	
6/2/2020	7.1	
10/14/2020	7.34	
4/19/2021		7.21
10/12/2021		7.22
4/4/2022		7.38
4/27/2023		7.13
8/3/2023		7.1
10/5/2023		7.01



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

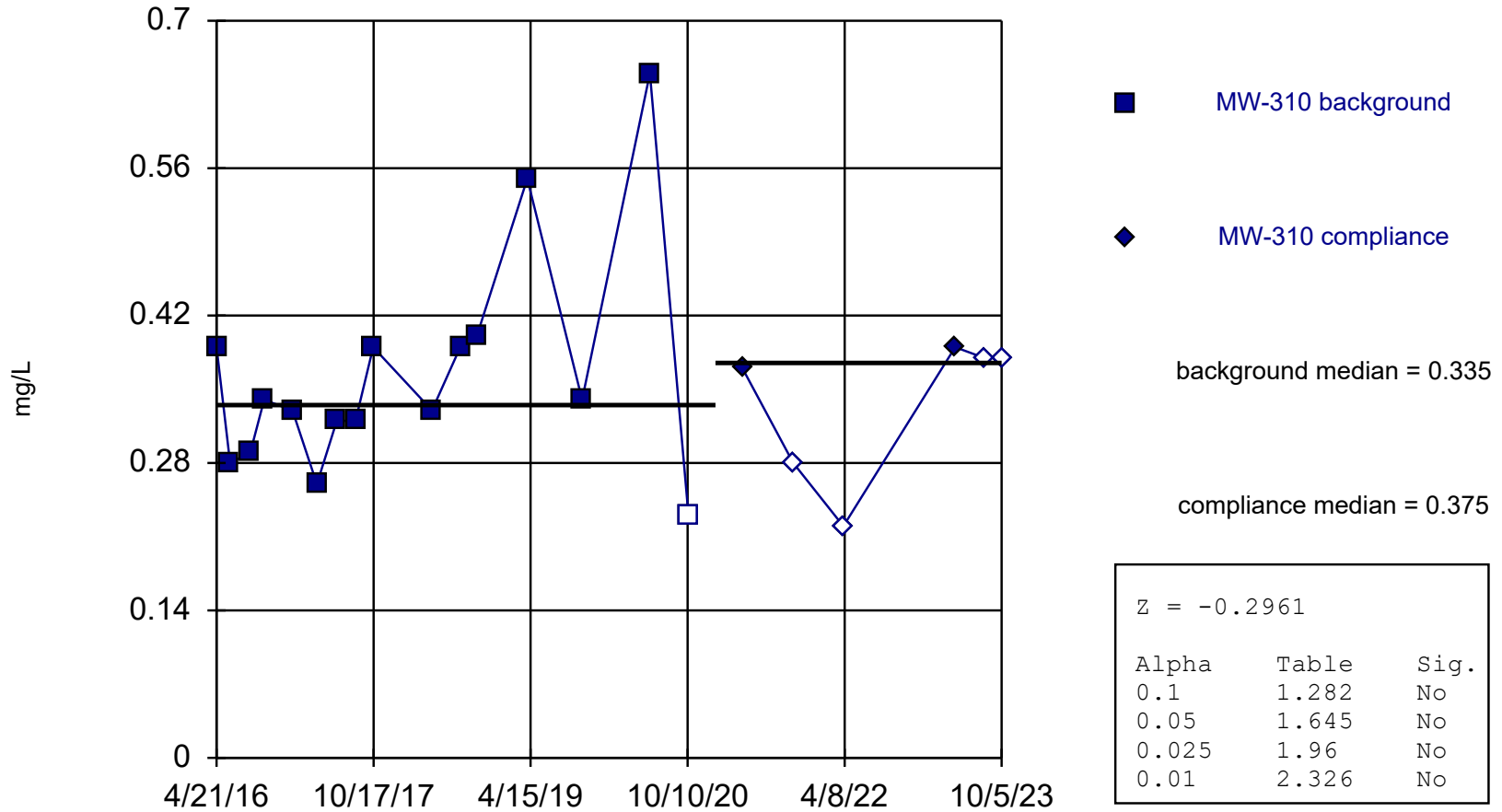
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Field pH (Std. Units) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	7	
6/7/2016	7.2	
8/16/2016	7.1	
10/3/2016	7.2	
1/9/2017	7.5	
4/4/2017	7.51	
6/12/2017	7.3	
8/16/2017	7.2	
10/16/2017	7.4	
5/8/2018	7.4	
8/14/2018	7.2	
10/10/2018	7.1	
4/4/2019	7	
10/11/2019	7.2	
6/2/2020	7	
10/14/2020	7.41	
3/1/2021		6.99
4/19/2021		7.16
10/12/2021		7.17
4/4/2022		7.22
4/27/2023		6.83
8/3/2023		6.95
10/5/2023		6.93

Fluoride

MW-310 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

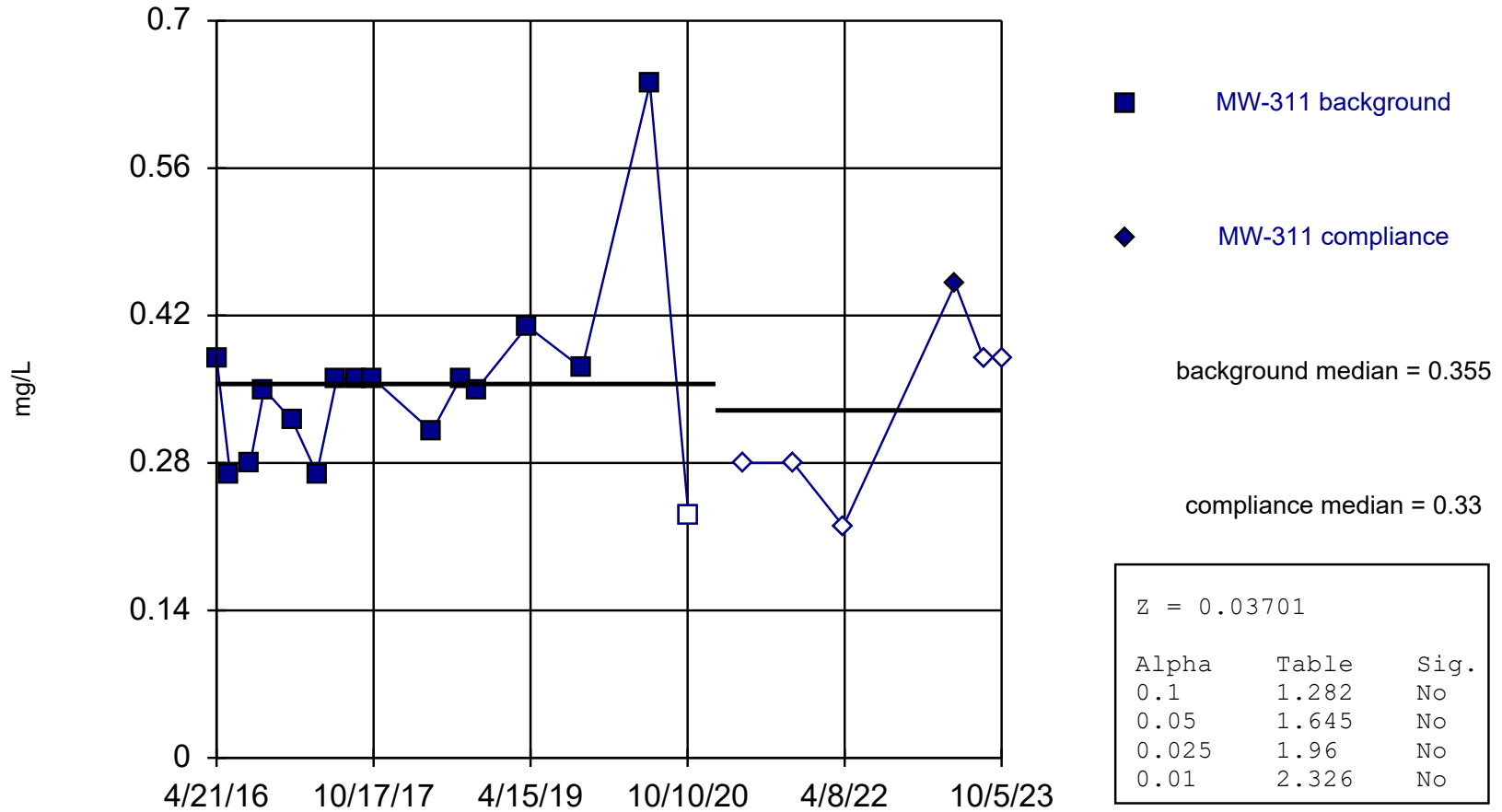
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Fluoride (mg/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	0.39	
6/7/2016	0.28	
8/16/2016	0.29	
10/3/2016	0.34	
1/9/2017	0.33	
4/4/2017	0.26	
6/12/2017	0.32	
8/16/2017	0.32	
10/16/2017	0.39	
5/8/2018	0.33	
8/14/2018	0.39	
10/10/2018	0.4	
4/4/2019	0.55	
10/11/2019	0.34 (J)	
6/2/2020	0.65	
10/14/2020	<0.23 (U)	
4/19/2021		0.37 (J)
10/12/2021		<0.28 (U)
4/4/2022		<0.22 (U)
4/27/2023		0.39 (J)
8/3/2023		<0.38 (U)
10/5/2023		<0.38 (U)

Fluoride

MW-311 (bg)

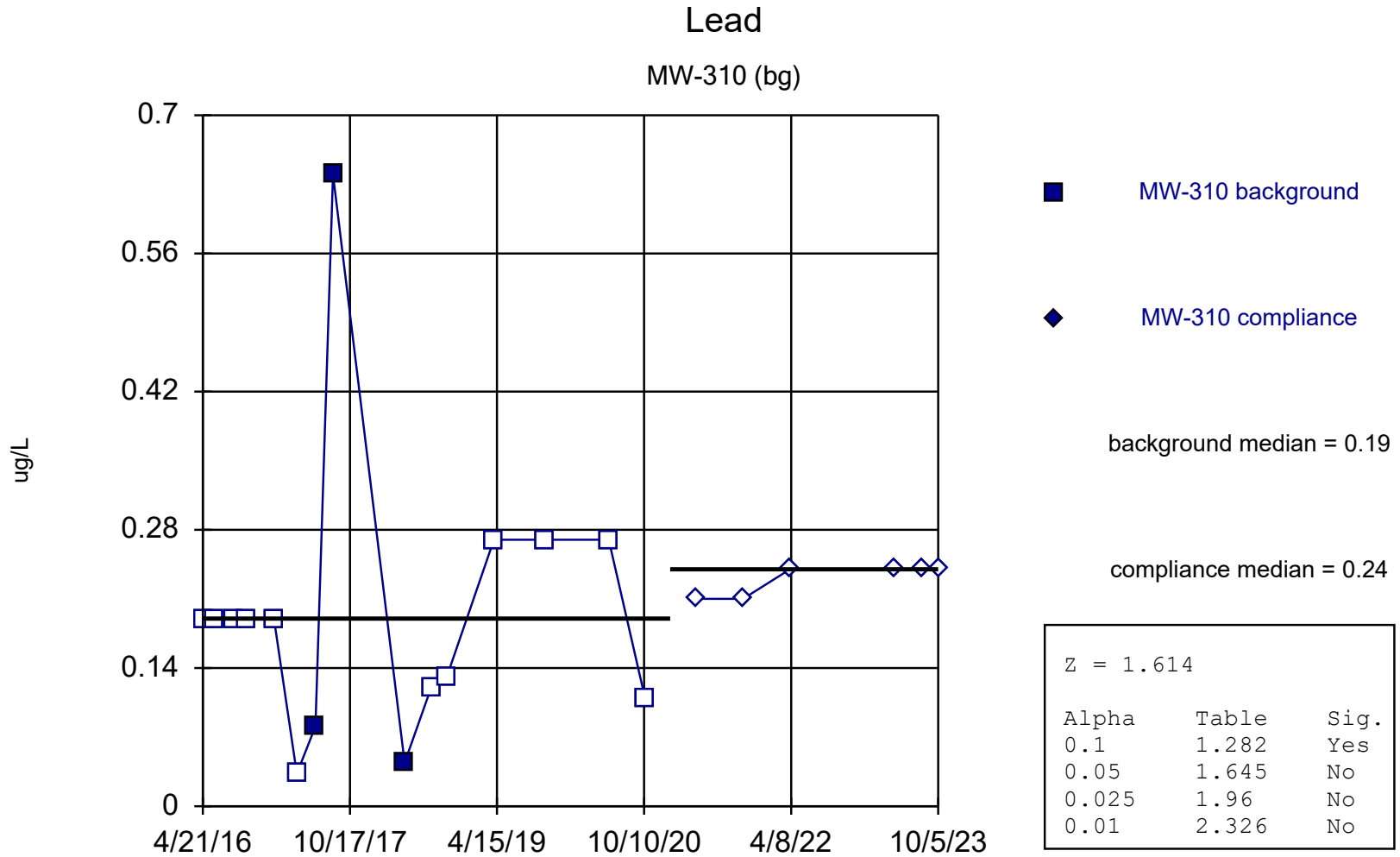


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Fluoride (mg/L) Analysis Run 1/26/2024 3:18 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	0.38	
6/7/2016	0.27	
8/16/2016	0.28	
10/3/2016	0.35	
1/9/2017	0.32	
4/4/2017	0.27	
6/12/2017	0.36	
8/16/2017	0.36	
10/16/2017	0.36	
5/8/2018	0.31	
8/14/2018	0.36	
10/10/2018	0.35	
4/4/2019	0.41 (J)	
10/11/2019	0.37 (J)	
6/2/2020	0.64	
10/14/2020	<0.23 (U)	
4/19/2021		<0.28 (U)
10/12/2021		<0.28 (U)
4/4/2022		<0.22 (U)
4/27/2023		0.45 (J)
8/3/2023		<0.38 (U)
10/5/2023		<0.38 (U)

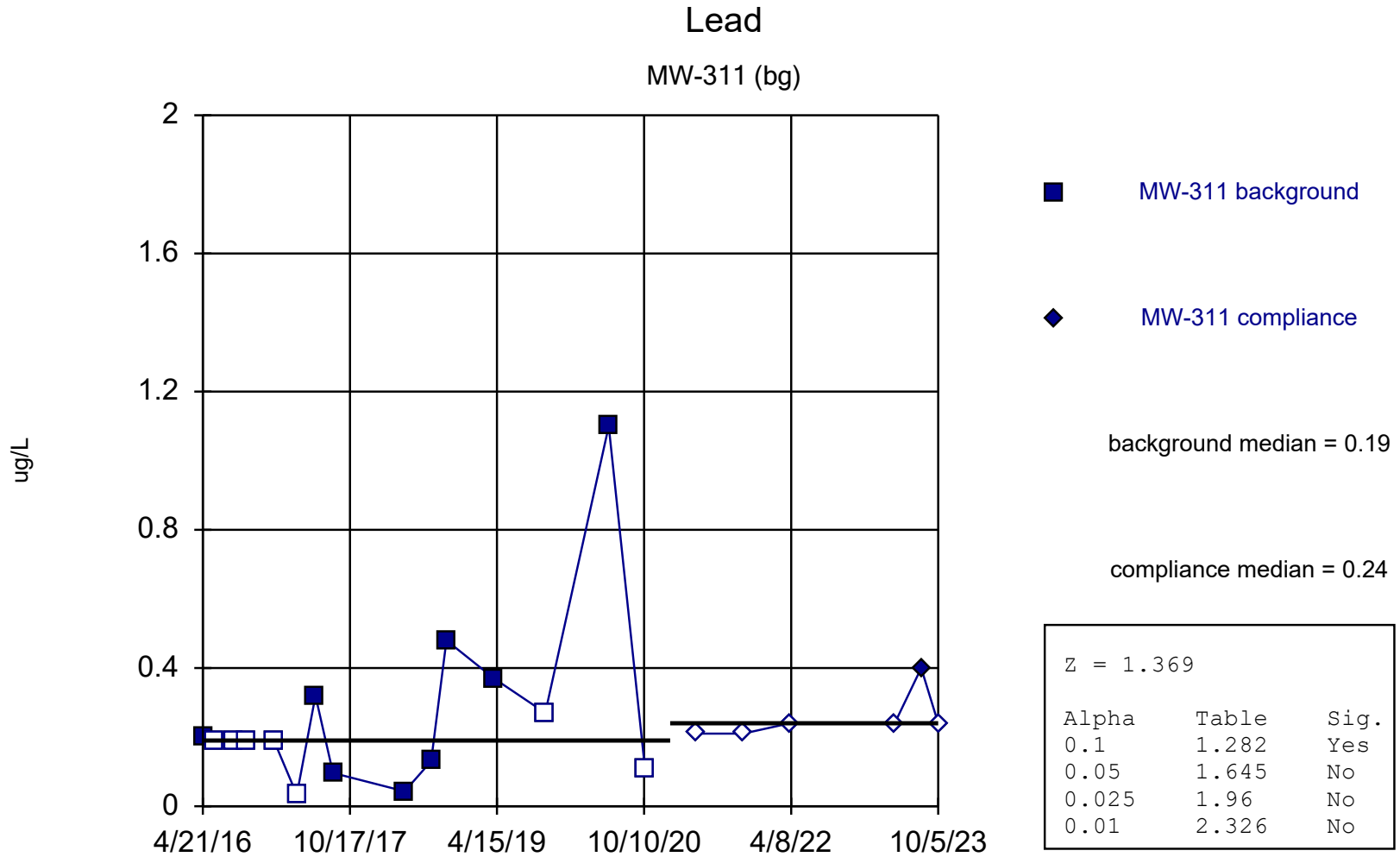


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Lead (ug/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	<0.19 (U)	
6/7/2016	<0.19 (U)	
8/16/2016	<0.19 (U)	
10/3/2016	<0.19 (U)	
1/9/2017	<0.19 (U)	
4/4/2017	<0.033 (U)	
6/12/2017	0.081 (J)	
8/16/2017	0.64 (J)	
5/8/2018	0.044 (J)	
8/14/2018	<0.12 (U)	
10/10/2018	<0.13 (U)	
4/4/2019	<0.27 (U)	
10/11/2019	<0.27 (U)	
6/2/2020	<0.27 (U)	
10/14/2020	<0.11 (U)	
4/19/2021		<0.21 (U)
10/12/2021		<0.21 (U)
4/4/2022		<0.24 (U)
4/27/2023		<0.24 (U)
8/3/2023		<0.24 (U)
10/5/2023		<0.24 (U)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

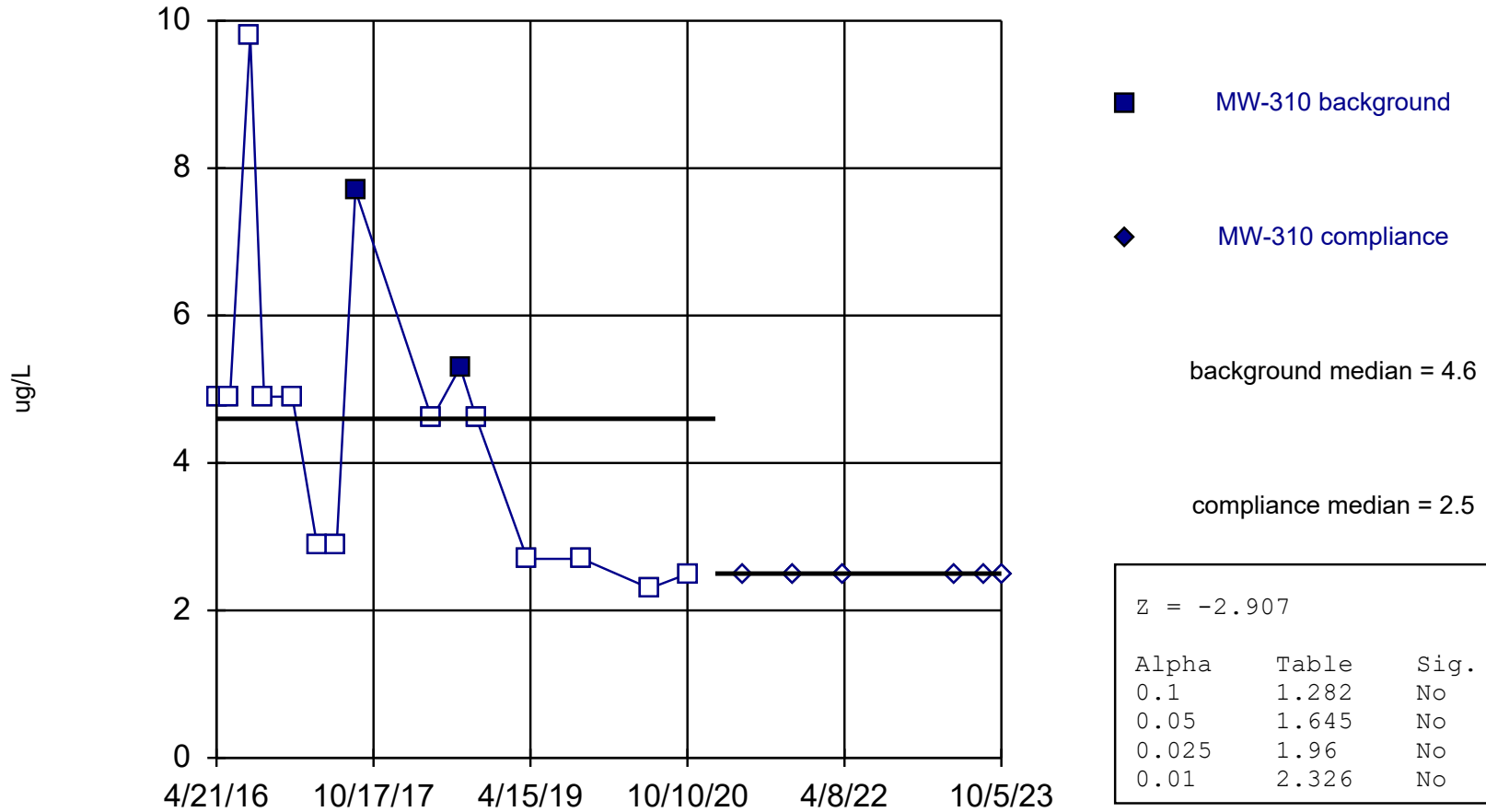
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Lead (ug/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	0.2 (J)	
6/7/2016	<0.19 (U)	
8/16/2016	<0.19 (U)	
10/3/2016	<0.19 (U)	
1/9/2017	<0.19 (U)	
4/4/2017	<0.033 (U)	
6/12/2017	0.32 (J)	
8/16/2017	0.096 (J)	
5/8/2018	0.043 (J)	
8/14/2018	0.13 (J)	
10/10/2018	0.48 (J)	
4/4/2019	0.37 (J)	
10/11/2019	<0.27 (U)	
6/2/2020	1.1	
10/14/2020	<0.11 (U)	
4/19/2021		<0.21 (U)
10/12/2021		<0.21 (U)
4/4/2022		<0.24 (U)
4/27/2023		<0.24 (U)
8/3/2023		0.4 (J)
10/5/2023		<0.24 (U)

Lithium

MW-310 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

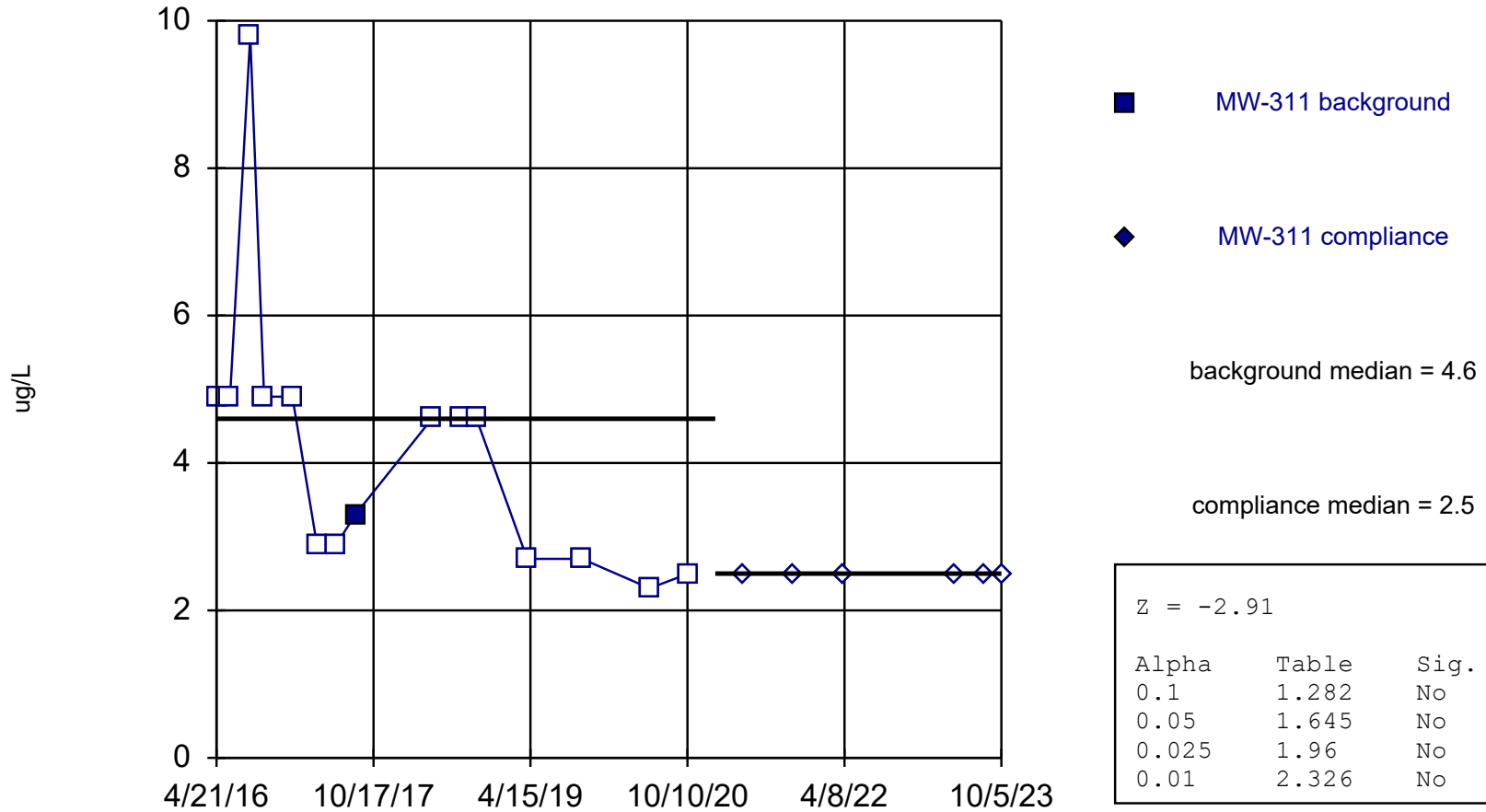
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Lithium (ug/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	<4.9 (U)	
6/7/2016	<4.9 (U)	
8/16/2016	<9.8 (U)	
10/3/2016	<4.9 (U)	
1/9/2017	<4.9 (U)	
4/4/2017	<2.9 (U)	
6/12/2017	<2.9 (U)	
8/16/2017	7.7 (J)	
5/8/2018	<4.6 (U)	
8/14/2018	5.3 (J)	
10/10/2018	<4.6 (U)	
4/4/2019	<2.7 (U)	
10/11/2019	<2.7 (U)	
6/2/2020	<2.3 (U)	
10/14/2020	<2.5 (U)	
4/19/2021		<2.5 (U)
10/12/2021		<2.5 (U)
4/4/2022		<2.5 (U)
4/27/2023		<2.5 (U)
8/3/2023		<2.5 (U)
10/5/2023		<2.5 (U)

Lithium

MW-311 (bg)

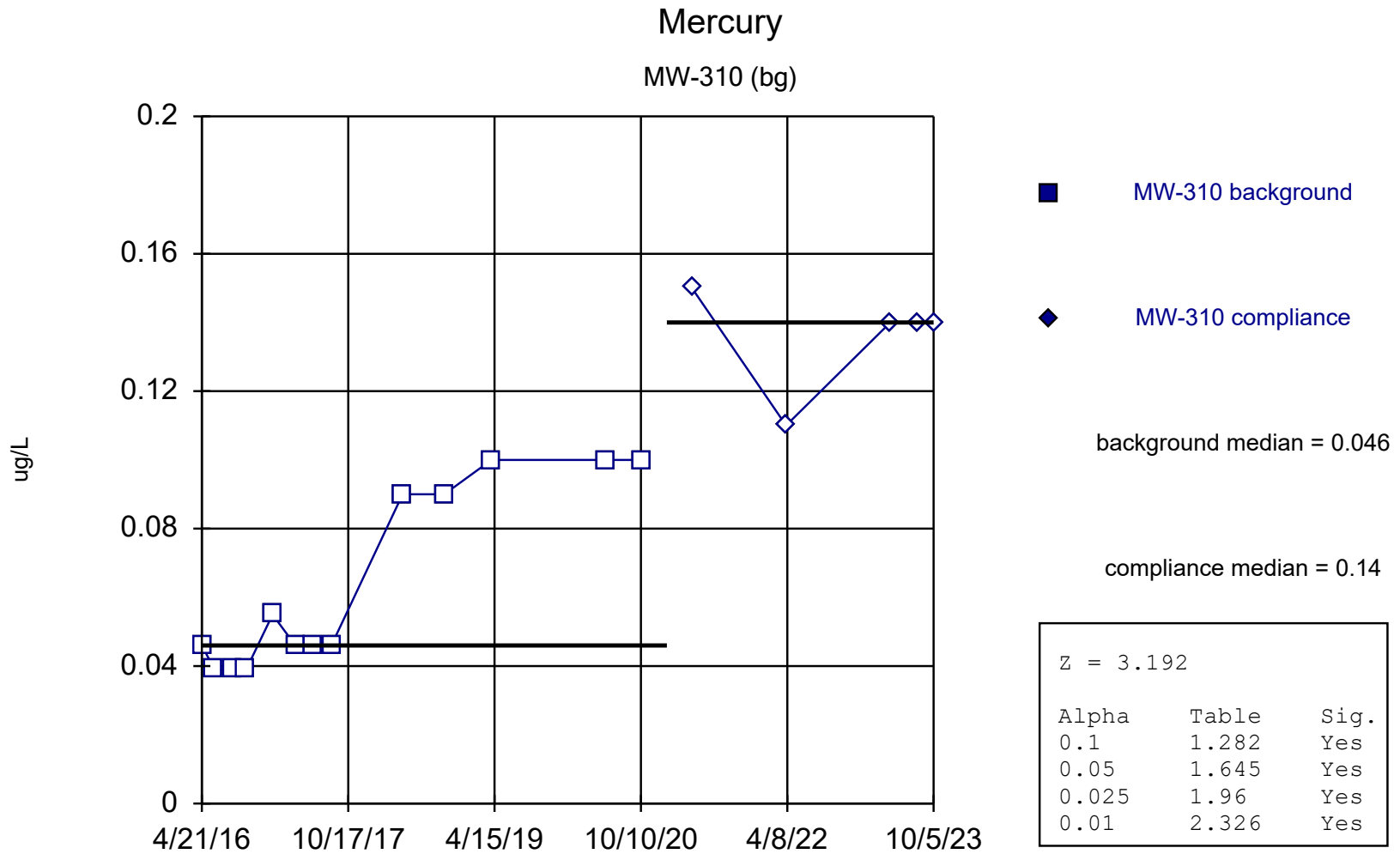


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Lithium (ug/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	<4.9 (U)	
6/7/2016	<4.9 (U)	
8/16/2016	<9.8 (U)	
10/3/2016	<4.9 (U)	
1/9/2017	<4.9 (U)	
4/4/2017	<2.9 (U)	
6/12/2017	<2.9 (U)	
8/16/2017	3.3 (J)	
5/8/2018	<4.6 (U)	
8/14/2018	<4.6 (U)	
10/10/2018	<4.6 (U)	
4/4/2019	<2.7 (U)	
10/11/2019	<2.7 (U)	
6/2/2020	<2.3 (U)	
10/14/2020	<2.5 (U)	
4/19/2021		<2.5 (U)
10/12/2021		<2.5 (U)
4/4/2022		<2.5 (U)
4/27/2023		<2.5 (U)
8/3/2023		<2.5 (U)
10/5/2023		<2.5 (U)

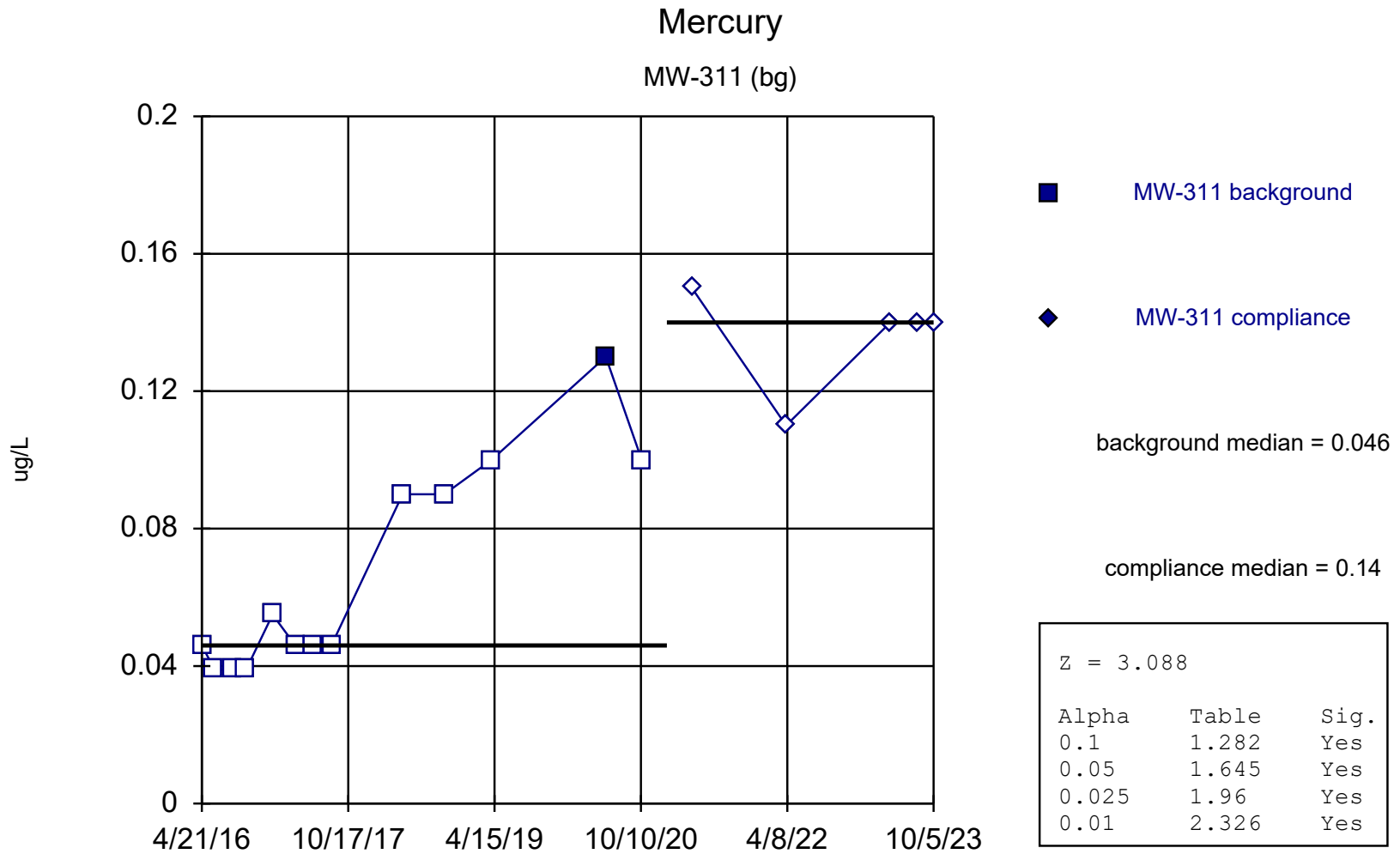


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Mercury (ug/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	<0.046 (U)	
6/7/2016	<0.039 (U)	
8/16/2016	<0.039 (U)	
10/3/2016	<0.039 (U)	
1/9/2017	<0.055 (U)	
4/4/2017	<0.046 (U)	
6/12/2017	<0.046 (U)	
8/16/2017	<0.046 (U)	
5/8/2018	<0.09 (U)	
10/10/2018	<0.09 (U)	
4/4/2019	<0.1 (U)	
6/2/2020	<0.1 (U)	
10/14/2020	<0.1 (U)	
4/19/2021		<0.15 (U)
4/4/2022		<0.11 (U)
4/27/2023		<0.14 (U)
8/3/2023		<0.14 (U)
10/5/2023		<0.14 (U)

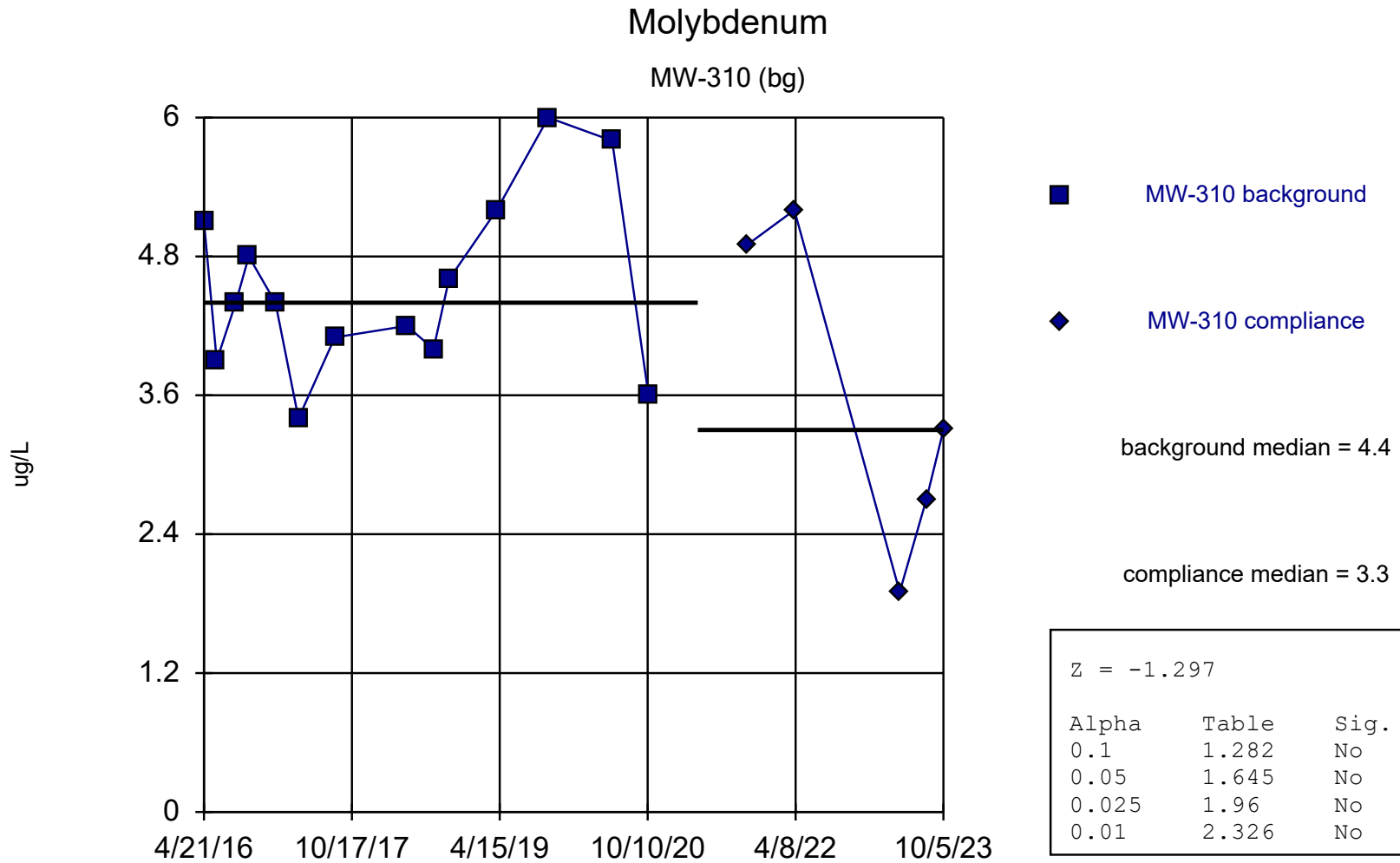


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Mercury (ug/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	<0.046 (U)	
6/7/2016	<0.039 (U)	
8/16/2016	<0.039 (U)	
10/3/2016	<0.039 (U)	
1/9/2017	<0.055 (U)	
4/4/2017	<0.046 (U)	
6/12/2017	<0.046 (U)	
8/16/2017	<0.046 (U)	
5/8/2018	<0.09 (U)	
10/10/2018	<0.09 (U)	
4/4/2019	<0.1 (U)	
6/2/2020	0.13 (J)	
10/14/2020	<0.1 (U)	
4/19/2021		<0.15 (U)
4/4/2022		<0.11 (U)
4/27/2023		<0.14 (U)
8/3/2023		<0.14 (U)
10/5/2023		<0.14 (U)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

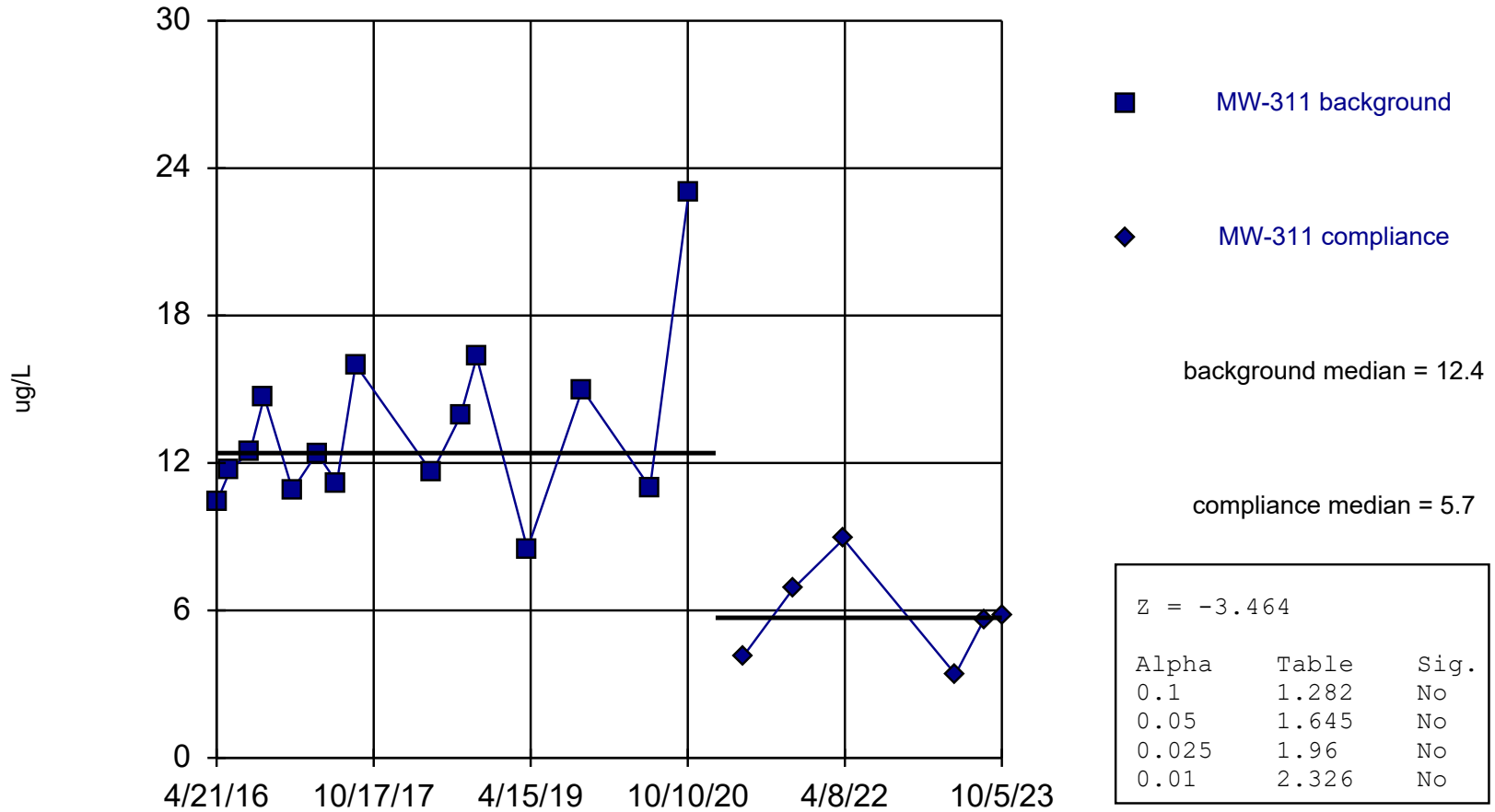
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Molybdenum (ug/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	5.1	
6/7/2016	3.9	
8/16/2016	4.4	
10/3/2016	4.8	
1/9/2017	4.4	
4/4/2017	3.4	
6/12/2017	10 (X)	
8/16/2017	4.1	
5/8/2018	4.2	
8/14/2018	4	
10/10/2018	4.6	
4/4/2019	5.2	
10/11/2019	6	
6/2/2020	5.8	
10/14/2020	3.6	
4/19/2021	14 (X)	
10/12/2021		4.9
4/4/2022		5.2
4/27/2023		1.9 (J)
8/3/2023		2.7
10/5/2023		3.3

Molybdenum

MW-311 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

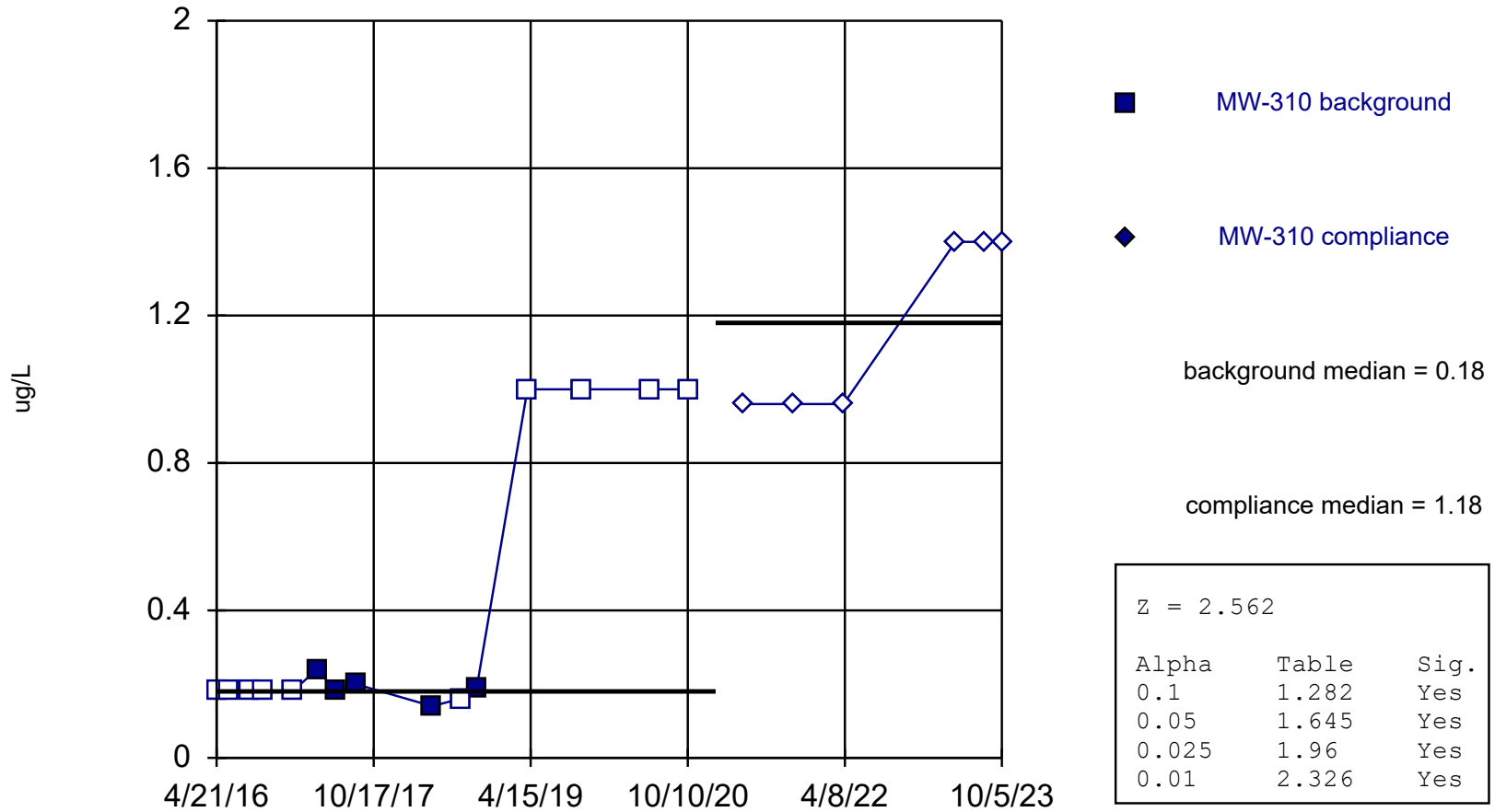
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Molybdenum (ug/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	10.4	
6/7/2016	11.7	
8/16/2016	12.5	
10/3/2016	14.7	
1/9/2017	10.9	
4/4/2017	12.4	
6/12/2017	11.2	
8/16/2017	16	
5/8/2018	11.6	
8/14/2018	13.9	
10/10/2018	16.3	
4/4/2019	8.5	
10/11/2019	15	
6/2/2020	11	
10/14/2020	23	
4/19/2021		4.1
10/12/2021		6.9
4/4/2022		8.9
4/27/2023		3.4
8/3/2023		5.6
10/5/2023		5.8

Selenium

MW-310 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

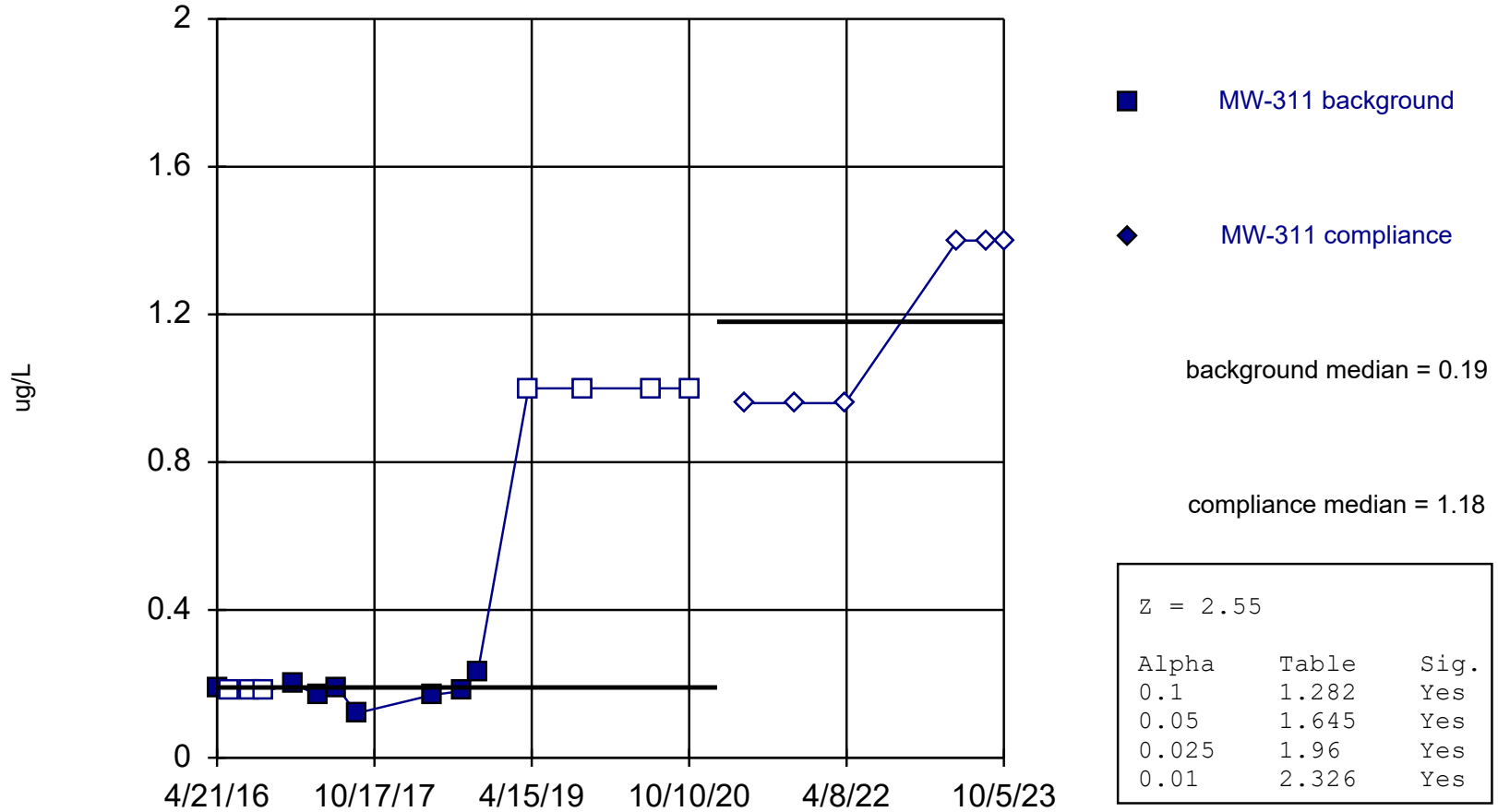
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Selenium (ug/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	<0.18 (U)	
6/7/2016	<0.18 (U)	
8/16/2016	<0.18 (U)	
10/3/2016	<0.18 (U)	
1/9/2017	<0.18 (U)	
4/4/2017	0.24 (J)	
6/12/2017	0.18 (J)	
8/16/2017	0.2 (J)	
5/8/2018	0.14 (J)	
8/14/2018	<0.16 (U)	
10/10/2018	0.19 (J)	
4/4/2019	<1 (U)	
10/11/2019	<1 (U)	
6/2/2020	<1 (U)	
10/14/2020	<1 (U)	
4/19/2021		<0.96 (U)
10/12/2021		<0.96 (U)
4/4/2022		<0.96 (U)
4/27/2023		<1.4 (U)
8/3/2023		<1.4 (U)
10/5/2023		<1.4 (U)

Selenium

MW-311 (bg)

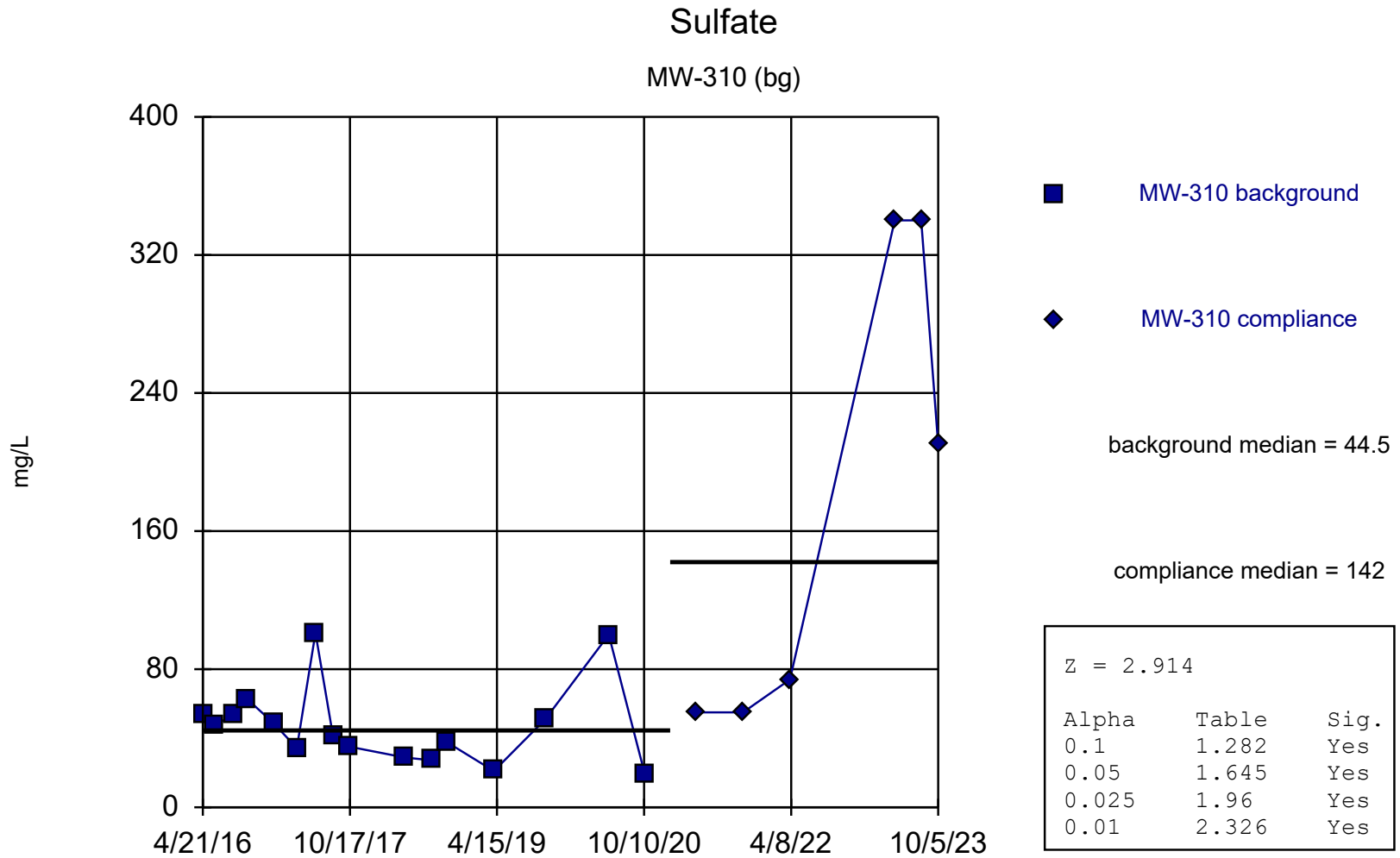


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Selenium (ug/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	0.19 (J)	
6/7/2016	<0.18 (U)	
8/16/2016	<0.18 (U)	
10/3/2016	<0.18 (U)	
1/9/2017	0.2 (J)	
4/4/2017	0.17 (J)	
6/12/2017	0.19 (J)	
8/16/2017	0.12 (J)	
5/8/2018	0.17 (J)	
8/14/2018	0.18 (J)	
10/10/2018	0.23 (J)	
4/4/2019	<1 (U)	
10/11/2019	<1 (U)	
6/2/2020	<1 (U)	
10/14/2020	<1 (U)	
4/19/2021		<0.96 (U)
10/12/2021		<0.96 (U)
4/4/2022		<0.96 (U)
4/27/2023		<1.4 (U)
8/3/2023		<1.4 (U)
10/5/2023		<1.4 (U)

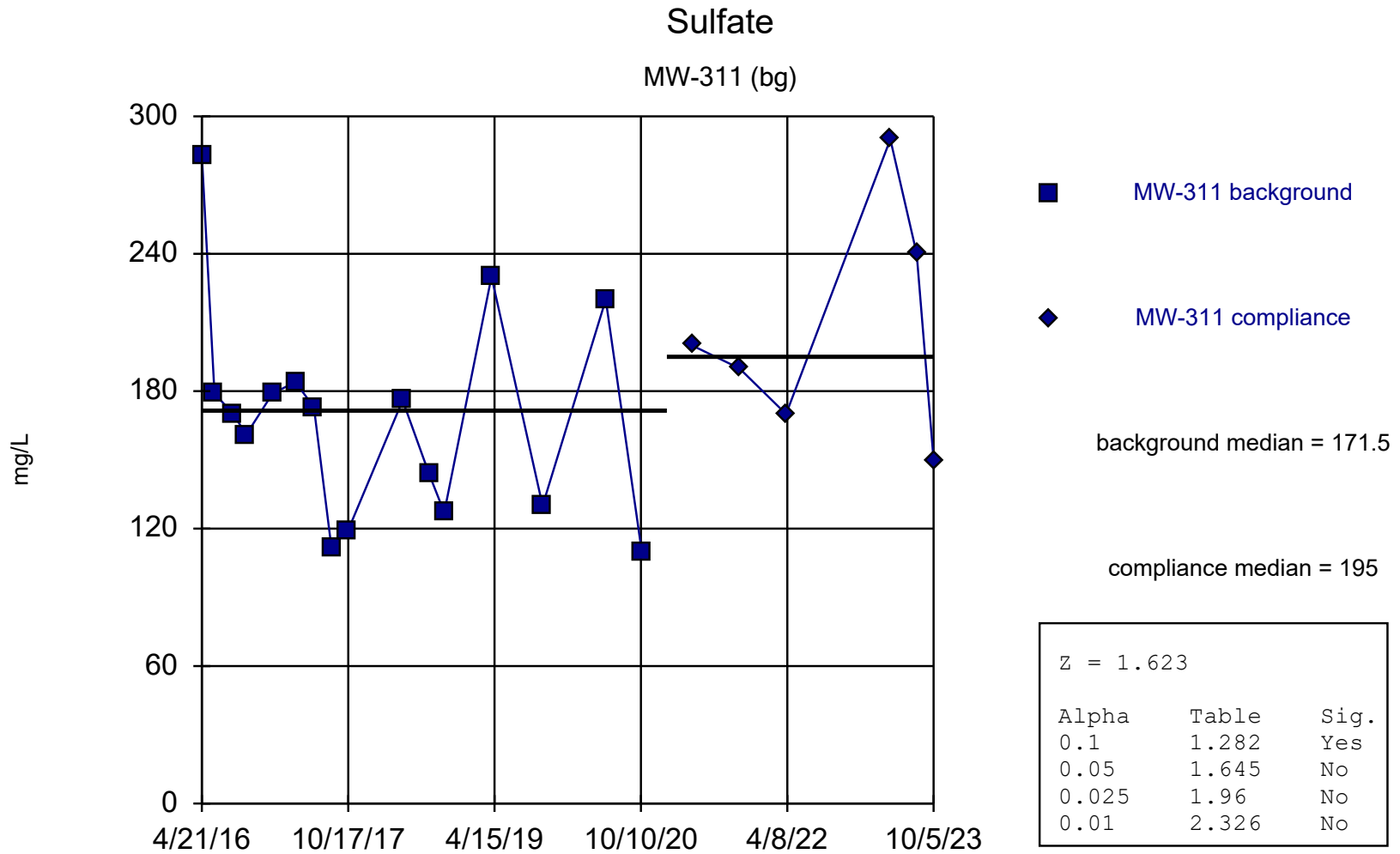


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	53.1	
6/7/2016	47.7	
8/16/2016	54	
10/3/2016	62.6	
1/9/2017	48.5	
4/4/2017	34.3	
6/12/2017	101	
8/16/2017	41.3	
10/16/2017	35.1	
5/8/2018	28.8	
8/14/2018	27.2	
10/10/2018	37.9	
4/4/2019	21	
10/11/2019	51	
6/2/2020	100	
10/14/2020	19	
4/19/2021		55
10/12/2021		55
4/4/2022		74
4/27/2023		340
8/3/2023		340
10/5/2023		210



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

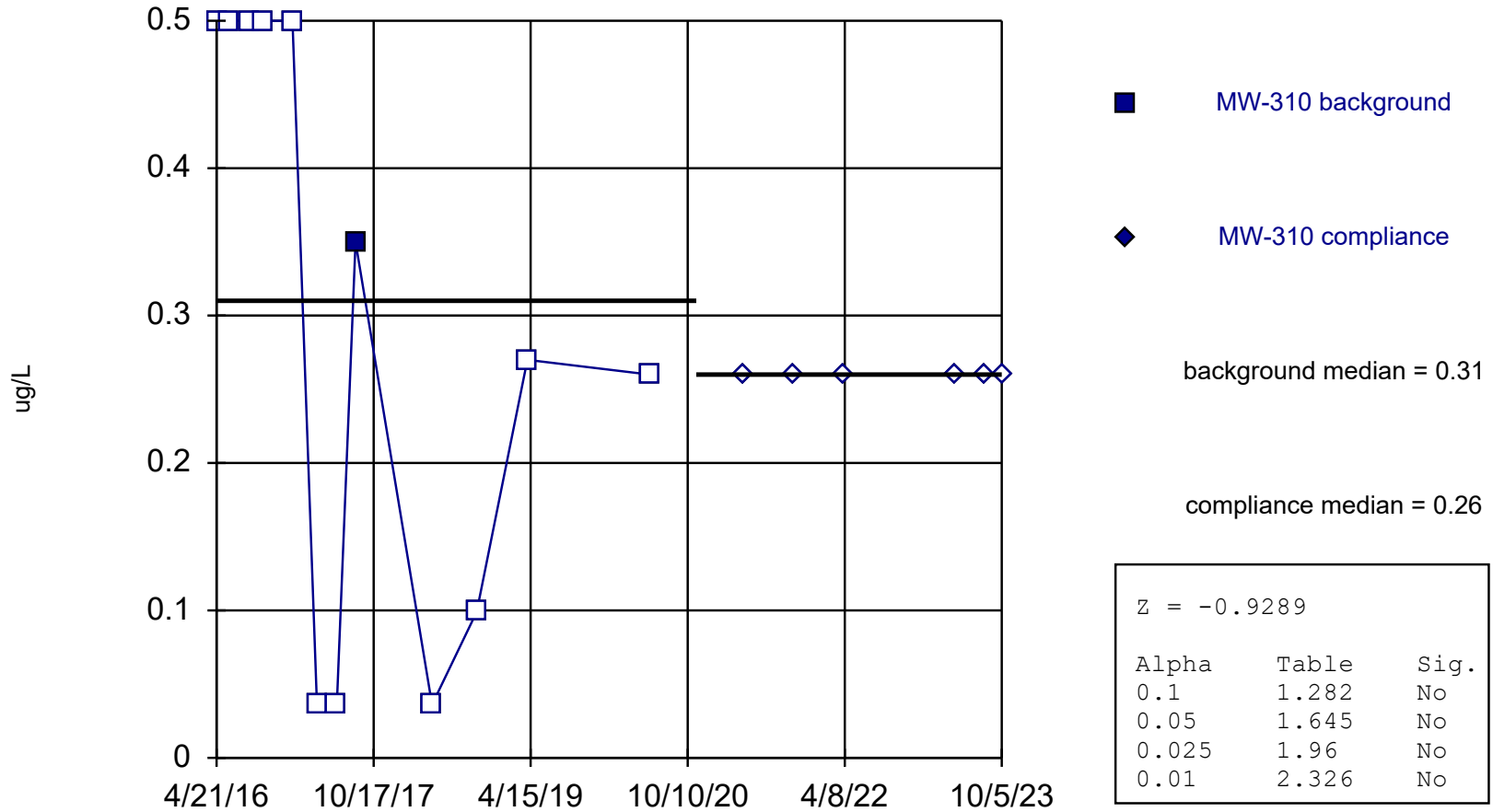
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	283	
6/7/2016	179	
8/16/2016	170	
10/3/2016	161	
1/9/2017	179	
4/4/2017	184	
6/12/2017	173	
8/16/2017	112	
10/16/2017	119	
5/8/2018	176	
8/14/2018	144	
10/10/2018	127	
4/4/2019	230	
10/11/2019	130	
6/2/2020	220	
10/14/2020	110	
4/19/2021		200
10/12/2021		190
4/4/2022		170
4/27/2023		290
8/3/2023		240
10/5/2023		150

Thallium

MW-310 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

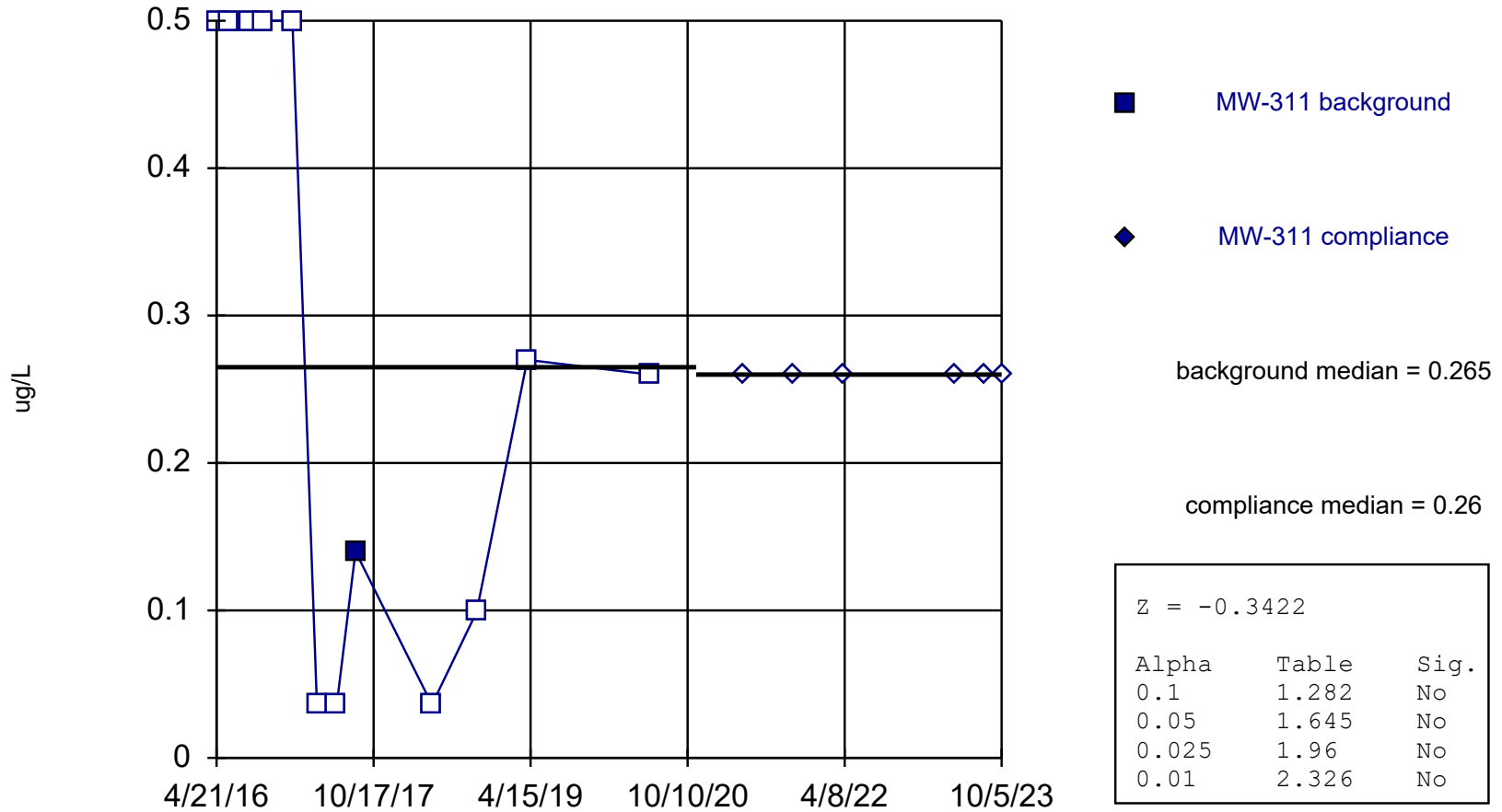
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Thallium (ug/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	<0.5 (U)	
6/7/2016	<0.5 (U)	
8/16/2016	<0.5 (U)	
10/3/2016	<0.5 (U)	
1/9/2017	<0.5 (U)	
4/4/2017	<0.036 (U)	
6/12/2017	<0.036 (U)	
8/16/2017	0.35 (J)	
5/8/2018	<0.036 (U)	
10/10/2018	<0.099 (U)	
4/4/2019	<0.27 (U)	
6/2/2020	<0.26 (U)	
4/19/2021		<0.26 (U)
10/12/2021		<0.26 (U)
4/4/2022		<0.26 (U)
4/27/2023		<0.26 (U)
8/3/2023		<0.26 (U)
10/5/2023		<0.26 (U)

Thallium

MW-311 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

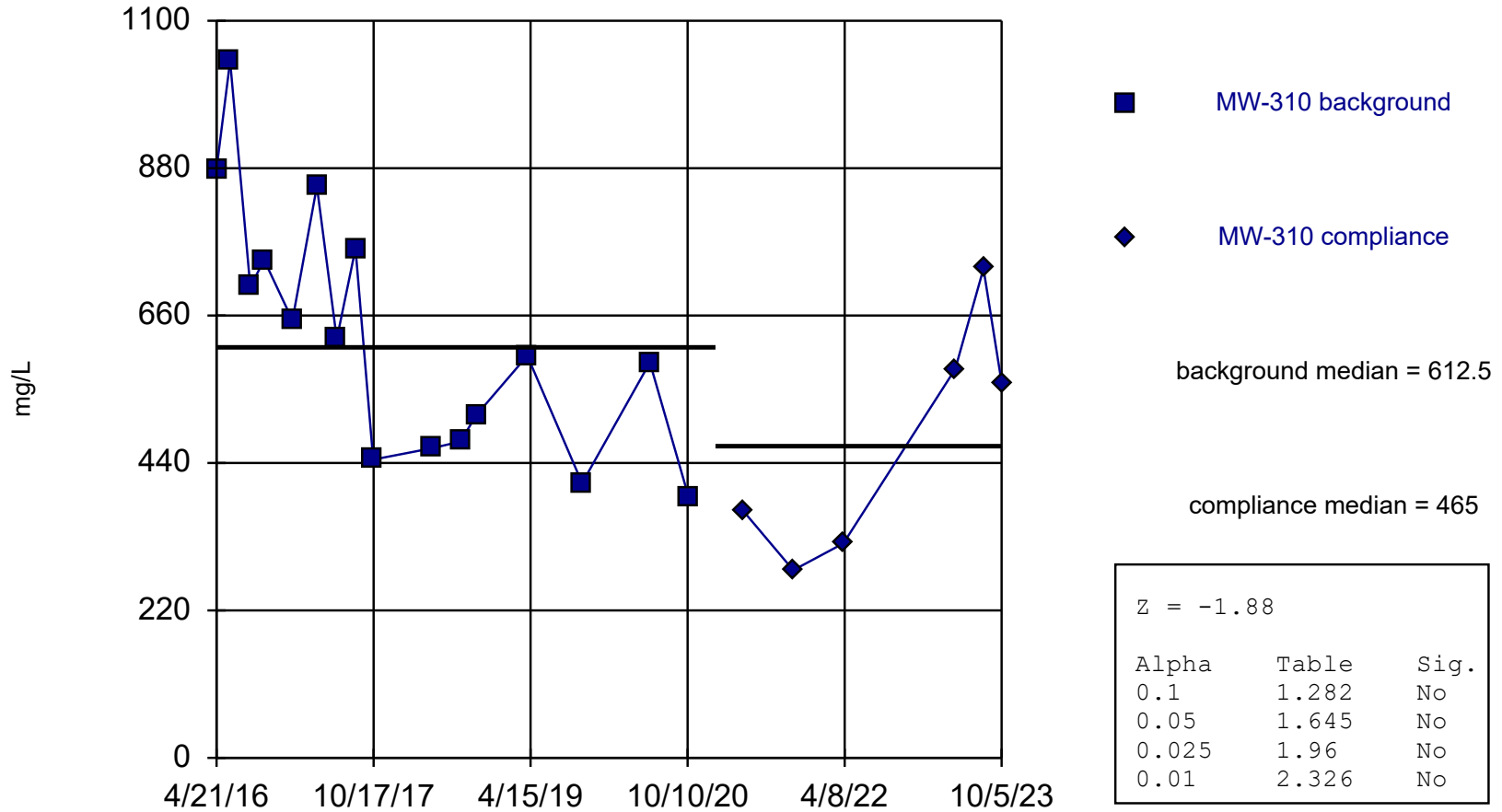
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Thallium (ug/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	<0.5 (U)	
6/7/2016	<0.5 (U)	
8/16/2016	<0.5 (U)	
10/3/2016	<0.5 (U)	
1/9/2017	<0.5 (U)	
4/4/2017	<0.036 (U)	
6/12/2017	<0.036 (U)	
8/16/2017	0.14 (J)	
5/8/2018	<0.036 (U)	
10/10/2018	<0.099 (U)	
4/4/2019	<0.27 (U)	
6/2/2020	<0.26 (U)	
4/19/2021		<0.26 (U)
10/12/2021		<0.26 (U)
4/4/2022		<0.26 (U)
4/27/2023		<0.26 (U)
8/3/2023		<0.26 (U)
10/5/2023		<0.26 (U)

Total Dissolved Solids

MW-310 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

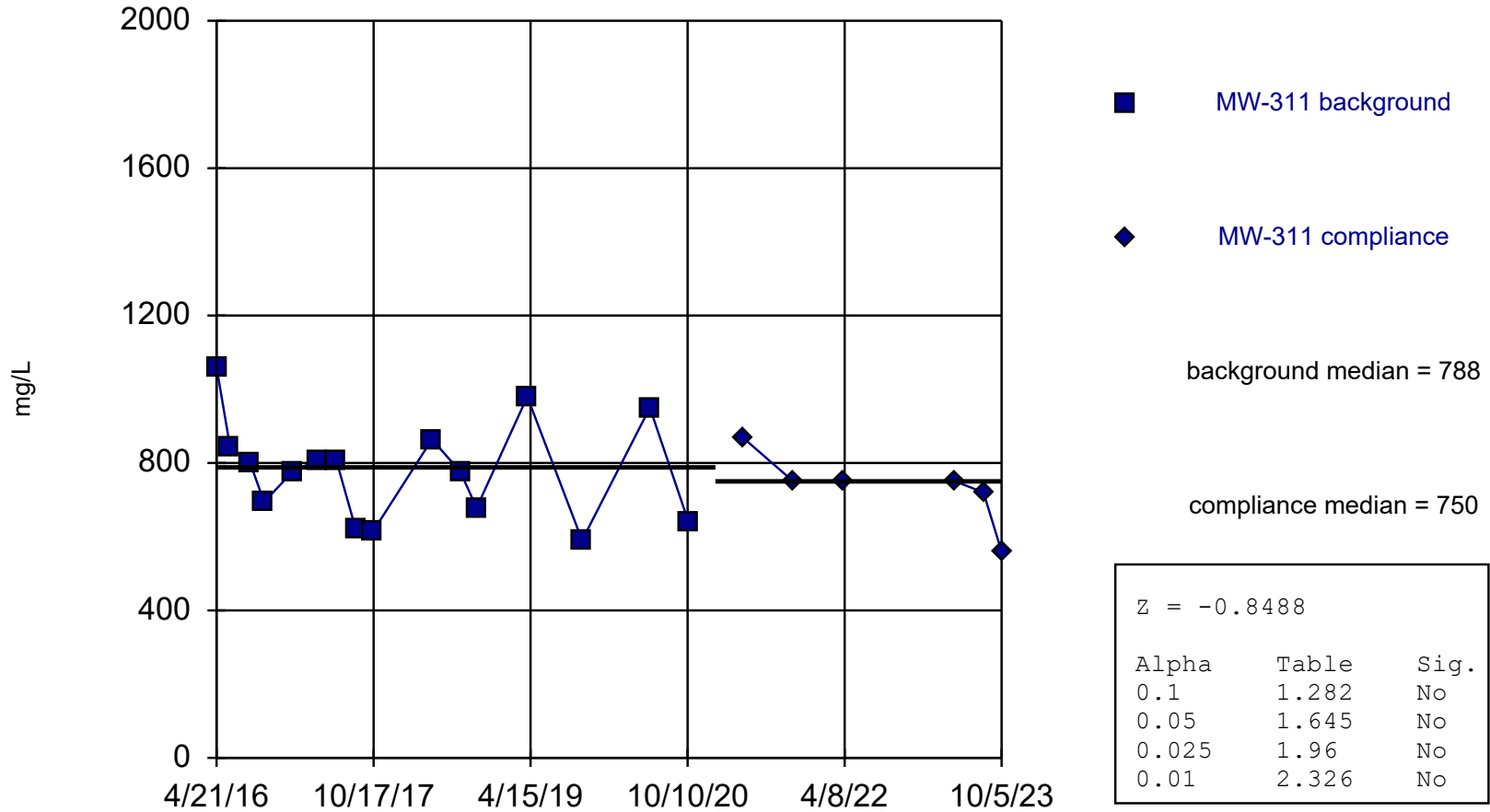
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	879	
6/7/2016	1040	
8/16/2016	703	
10/3/2016	743	
1/9/2017	653	
4/4/2017	853	
6/12/2017	625	
8/16/2017	760	
10/16/2017	445	
5/8/2018	462	
8/14/2018	472	
10/10/2018	512	
4/4/2019	600	
10/11/2019	410	
6/2/2020	590	
10/14/2020	390	
4/19/2021		370
10/12/2021		280
4/4/2022		320
4/27/2023		580
8/3/2023		730
10/5/2023		560

Total Dissolved Solids

MW-311 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

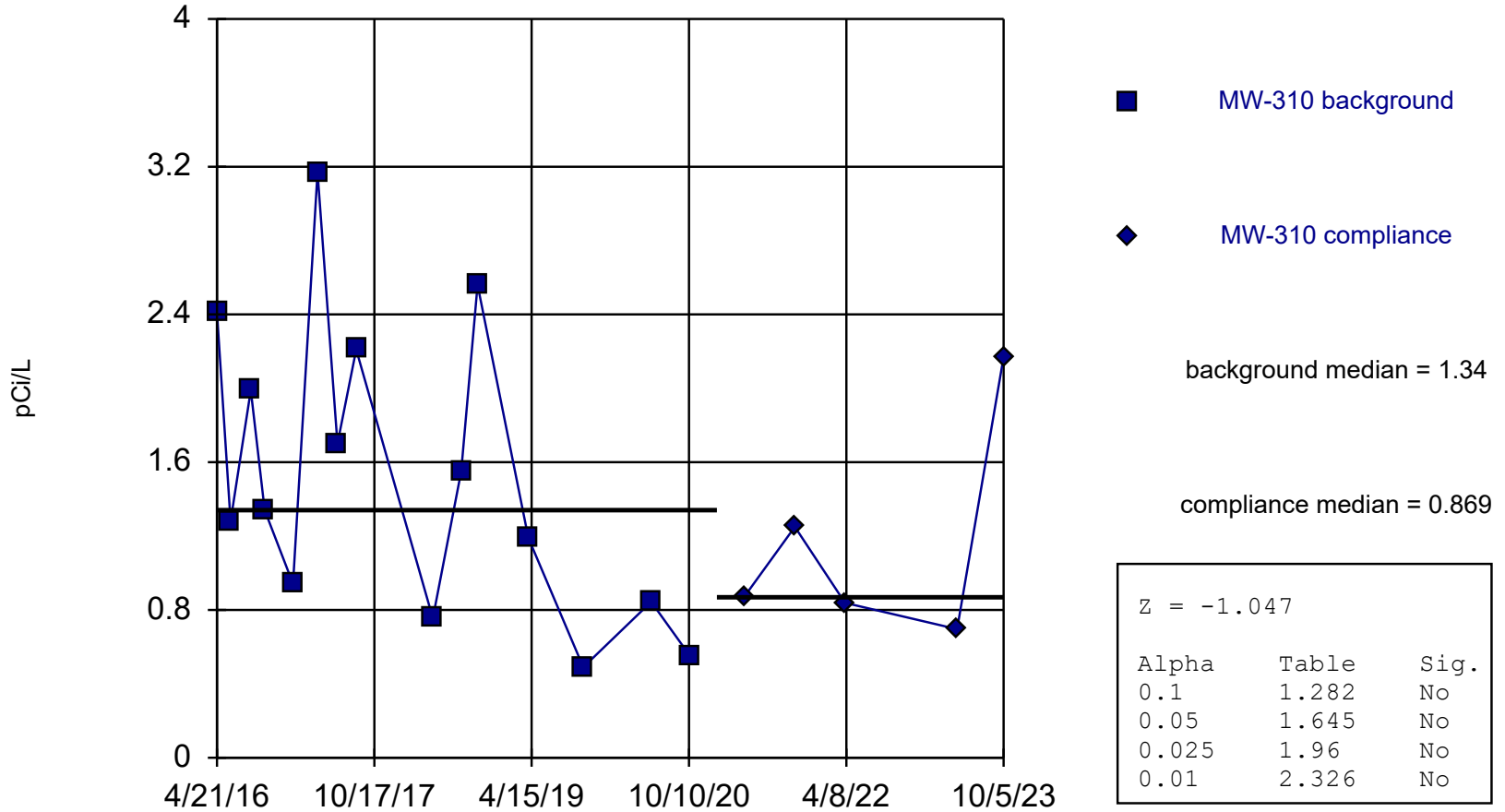
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	1060	
6/7/2016	843	
8/16/2016	799	
10/3/2016	694	
1/9/2017	776	
4/4/2017	808	
6/12/2017	803	
8/16/2017	623	
10/16/2017	615	
5/8/2018	864	
8/14/2018	777	
10/10/2018	678	
4/4/2019	980	
10/11/2019	590	
6/2/2020	950	
10/14/2020	640	
4/19/2021		870
10/12/2021		750
4/4/2022		750
4/27/2023		750
8/3/2023		720
10/5/2023		560

Total Radium

MW-310 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

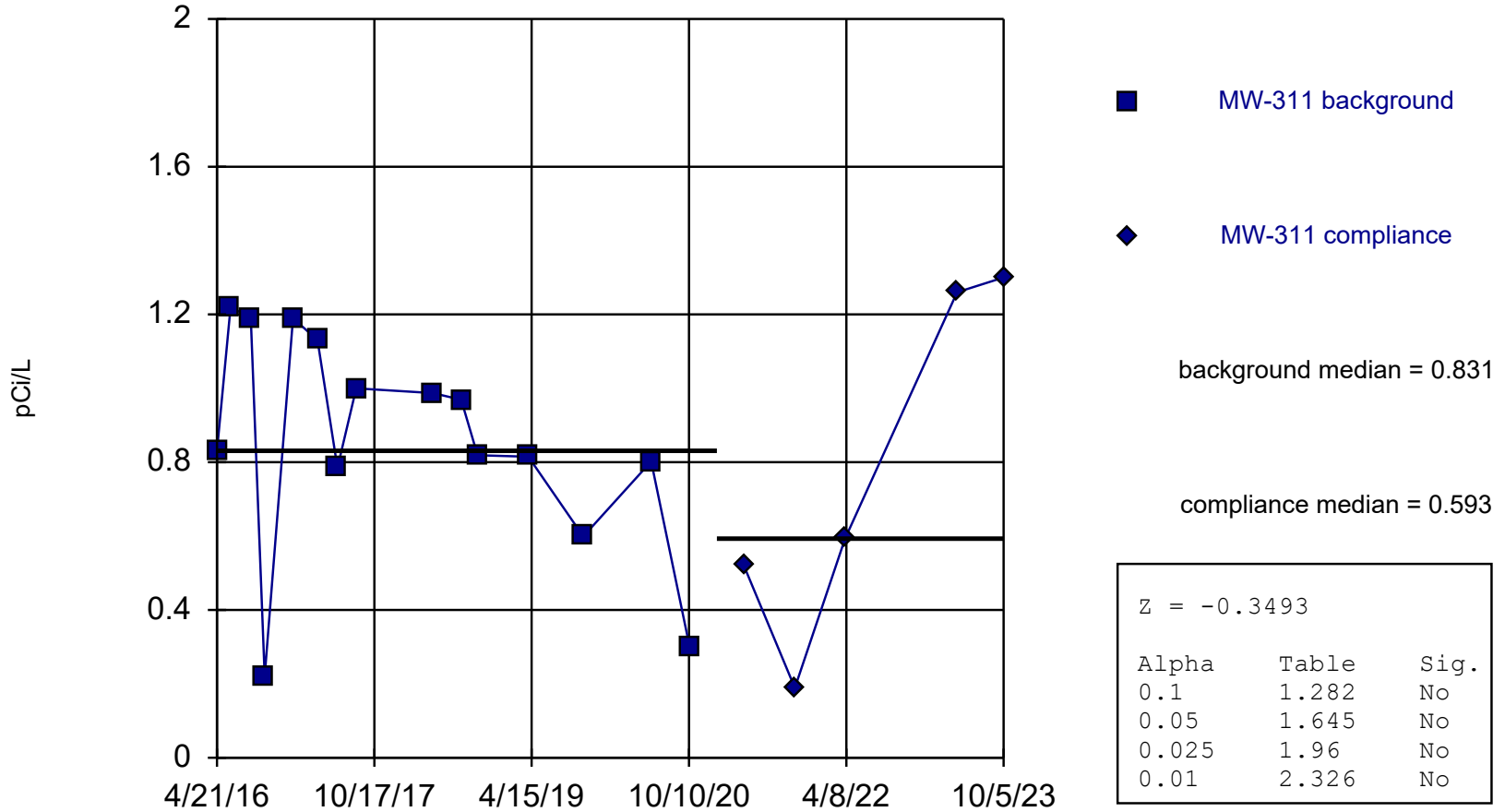
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Radium (pCi/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	2.41	
6/7/2016	1.28	
8/16/2016	1.99	
10/3/2016	1.34	
1/9/2017	0.941	
4/4/2017	3.17	
6/12/2017	1.7	
8/16/2017	2.21	
5/8/2018	0.755	
8/14/2018	1.55	
10/10/2018	2.56	
4/4/2019	1.19	
10/11/2019	0.49	
6/2/2020	0.844	
10/14/2020	0.552	
4/19/2021		0.869
10/12/2021		1.25
4/4/2022		0.838
4/27/2023		0.696
10/5/2023		2.17

Total Radium

MW-311 (bg)



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 1/26/2024 3:17 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

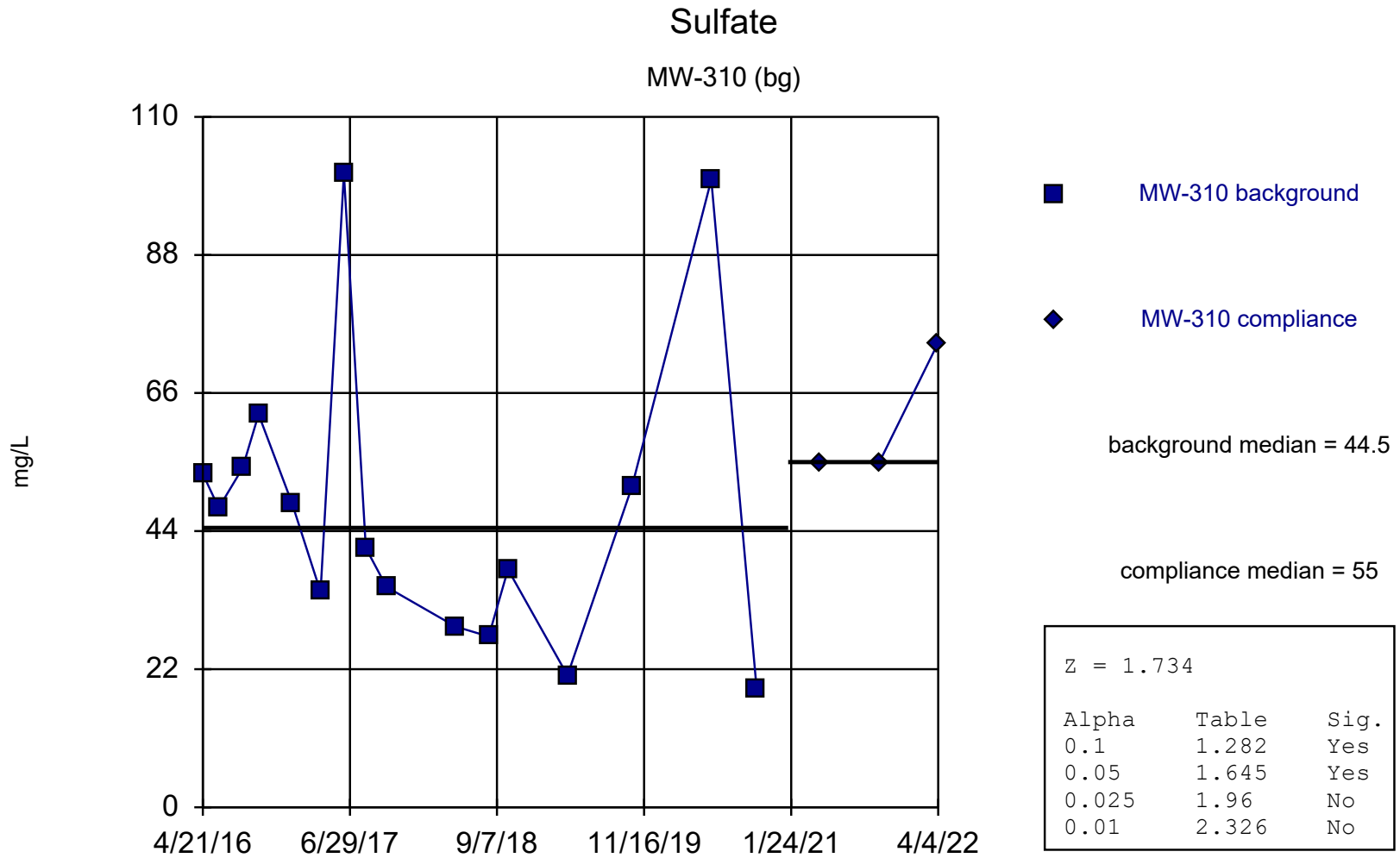
Constituent: Total Radium (pCi/L) Analysis Run 1/26/2024 3:19 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	0.831	
6/7/2016	1.22	
8/16/2016	1.19	
10/3/2016	0.22	
1/9/2017	1.19	
4/4/2017	1.13	
6/12/2017	0.785	
8/16/2017	1	
5/8/2018	0.987	
8/14/2018	0.969	
10/10/2018	0.819	
4/4/2019	0.815	
10/11/2019	0.599	
6/2/2020	0.802	
10/14/2020	0.297	
4/19/2021		0.52
10/12/2021		0.189
4/4/2022		0.593
4/27/2023		1.26
10/5/2023		1.3

Welch's t-test/Mann-Whitney

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 7/31/2024, 6:38 PM

<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.1</u>	<u>0.05</u>	<u>0.025</u>	<u>0.01</u>	<u>Alpha</u>	<u>Sig.</u>	<u>Bg. Wells</u>	<u>Method</u>
Sulfate (mg/L)	MW-310 (bg)	1.734	Yes	Yes	No	No	0.01	No	(intrawell)	Mann-W
Sulfate (mg/L)	MW-311 (bg)	1.623	Yes	No	No	No	0.01	No	(intrawell)	Mann-W

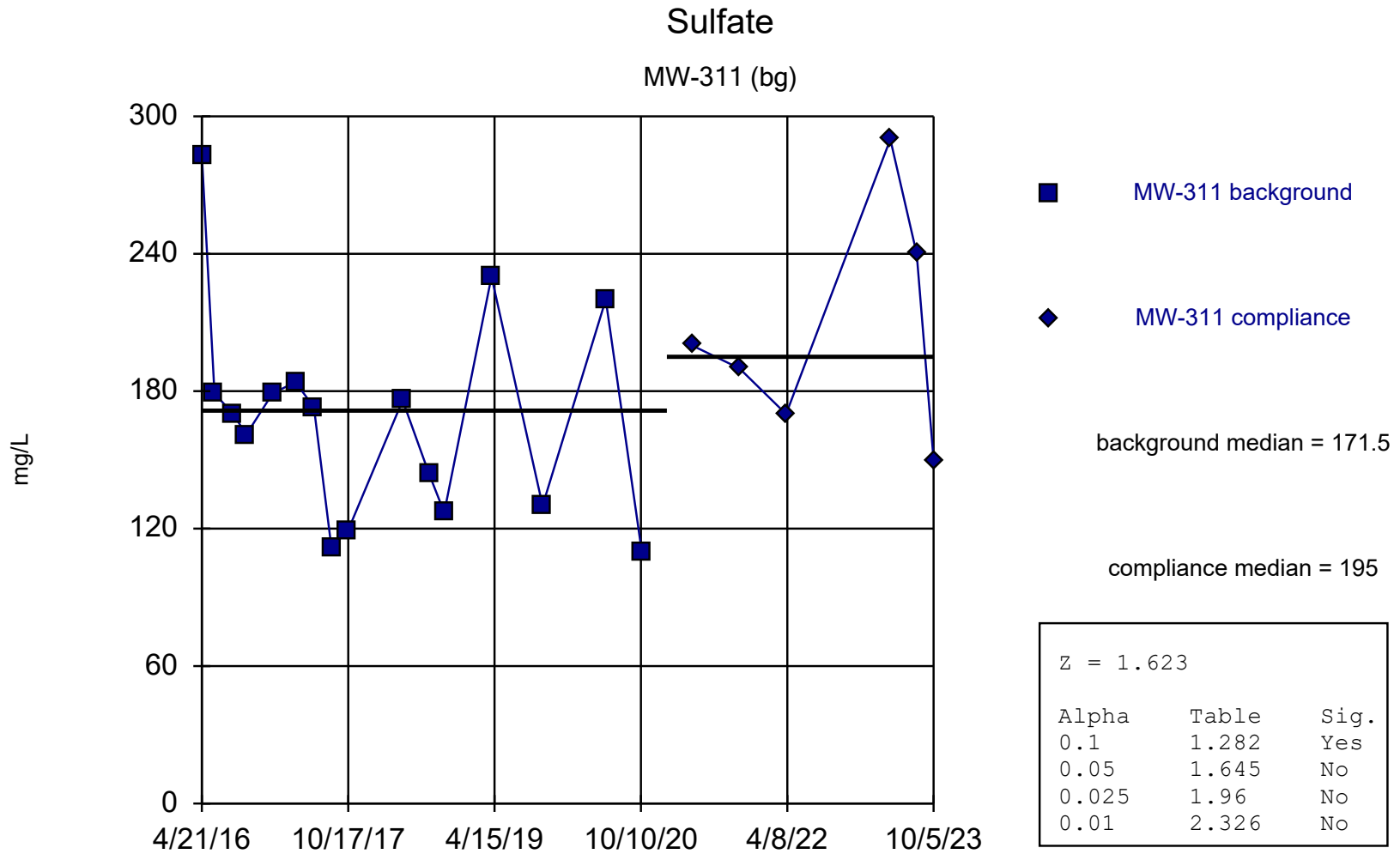


Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 7/31/2024 6:37 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 7/31/2024 6:38 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310	MW-310
4/21/2016	53.1	
6/7/2016	47.7	
8/16/2016	54	
10/3/2016	62.6	
1/9/2017	48.5	
4/4/2017	34.3	
6/12/2017	101	
8/16/2017	41.3	
10/16/2017	35.1	
5/8/2018	28.8	
8/14/2018	27.2	
10/10/2018	37.9	
4/4/2019	21	
10/11/2019	51	
6/2/2020	100	
10/14/2020	19	
4/19/2021		55
10/12/2021		55
4/4/2022		74
4/27/2023	340 (X)	
8/3/2023	340 (X)	
10/5/2023	210 (X)	



Mann-Whitney (Wilcoxon Rank Sum) Analysis Run 7/31/2024 6:37 PM View: Default
 Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 7/31/2024 6:38 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-311	MW-311
4/21/2016	283	
6/7/2016	179	
8/16/2016	170	
10/3/2016	161	
1/9/2017	179	
4/4/2017	184	
6/12/2017	173	
8/16/2017	112	
10/16/2017	119	
5/8/2018	176	
8/14/2018	144	
10/10/2018	127	
4/4/2019	230	
10/11/2019	130	
6/2/2020	220	
10/14/2020	110	
4/19/2021		200
10/12/2021		190
4/4/2022		170
4/27/2023		290
8/3/2023		240
10/5/2023		150

Attachment 4

Interwell Prediction Limit Analysis

Prediction Limit

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 7/31/2024, 6:54 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Wells</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (ug/L)	n/a	3500	n/a	9 future	n/a	42	MW-310,MW-311	n/a	n/a	0	n/a	n/a	0.001036	NP Inter (normality) ...
Calcium (mg/L)	n/a	208	n/a	9 future	n/a	44	MW-310,MW-311	143.6	31.64	0	None	No	0.0008358	Param Inter 1 of 2
Chloride (mg/L)	n/a	167	n/a	9 future	n/a	44	MW-310,MW-311	72.91	46.43	0	None	No	0.0008358	Param Inter 1 of 2
Field pH (Std. Units)	n/a	7.51	n/a	9 future	n/a	45	MW-310,MW-311	7.177	0.1637	0	None	No	0.0008358	Param Inter 1 of 2
Fluoride (mg/L)	n/a	0.526	n/a	9 future	n/a	44	MW-310,MW-311	-1.228	0.2893	25	Kapla...	ln(x)	0.0008358	Param Inter 1 of 2
Sulfate (mg/L)	n/a	444	n/a	9 future	n/a	41	MW-310,MW-311	4.53	0.7686	0	None	ln(x)	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	n/a	1060	n/a	9 future	n/a	44	MW-310,MW-311	679	186	0	None	No	0.0008358	Param Inter 1 of 2

Boron

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 42 background values. Annual per-constituent alpha = 0.01849. Individual comparison alpha = 0.001036 (1 of 2). Assumes 9 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

Prediction Limit Analysis Run 7/31/2024 6:53 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

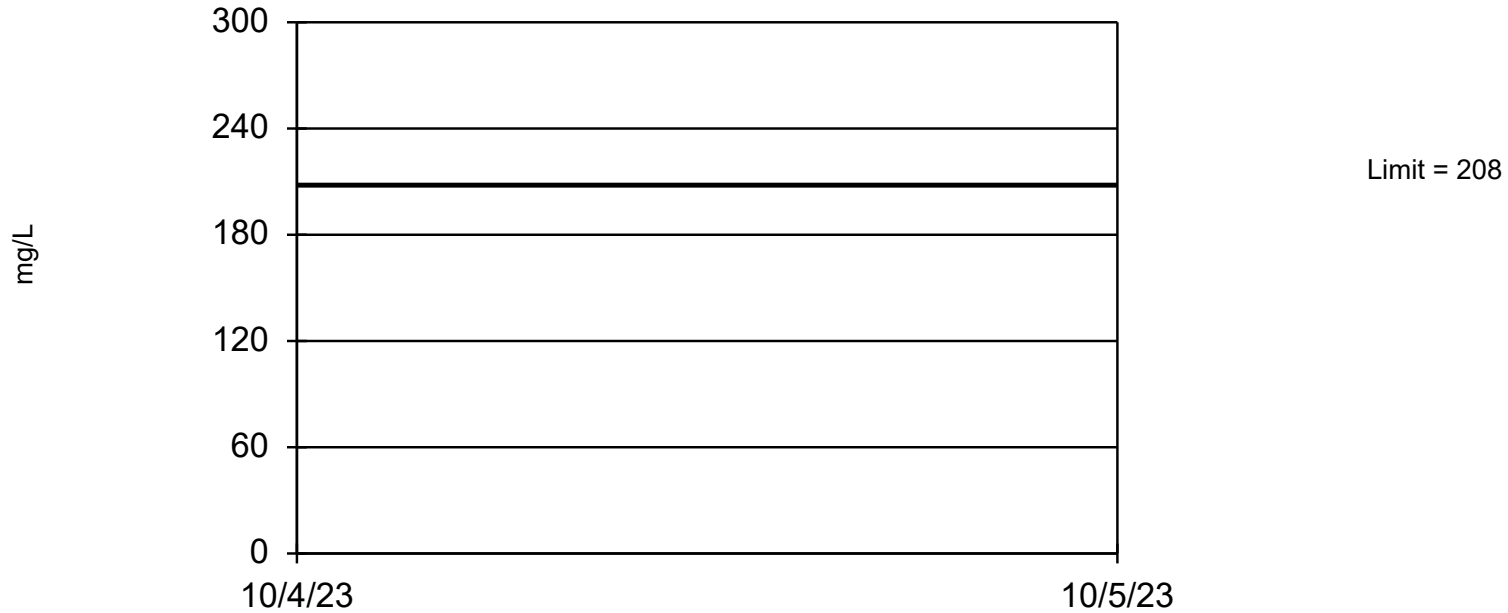
Prediction Limit

Constituent: Boron (ug/L) Analysis Run 7/31/2024 6:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	437	1810
6/7/2016	422	2070
8/16/2016	326	2320
10/3/2016	400	2950
1/9/2017	413	2160
4/4/2017	503	2400
6/12/2017	2210 (X)	2130
8/16/2017	365	360 (X)
10/16/2017	305	2810
5/8/2018	217	2200
8/14/2018	256	2580
10/10/2018	268	2820
4/4/2019	560	1800
10/11/2019	380	2800
6/2/2020	500	2500
10/14/2020	290	3500
4/19/2021	220	2000
10/12/2021	310	1800
4/4/2022	230	1600
4/27/2023	150	1200
8/3/2023	260	1700
10/5/2023	130	1400

Calcium

Interwell Parametric



Background Data Summary: Mean=143.6, Std. Dev.=31.64, n=44. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9615, critical = 0.924. Kappa = 2.026 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0008358. Assumes 9 future values.

Prediction Limit Analysis Run 7/31/2024 6:53 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

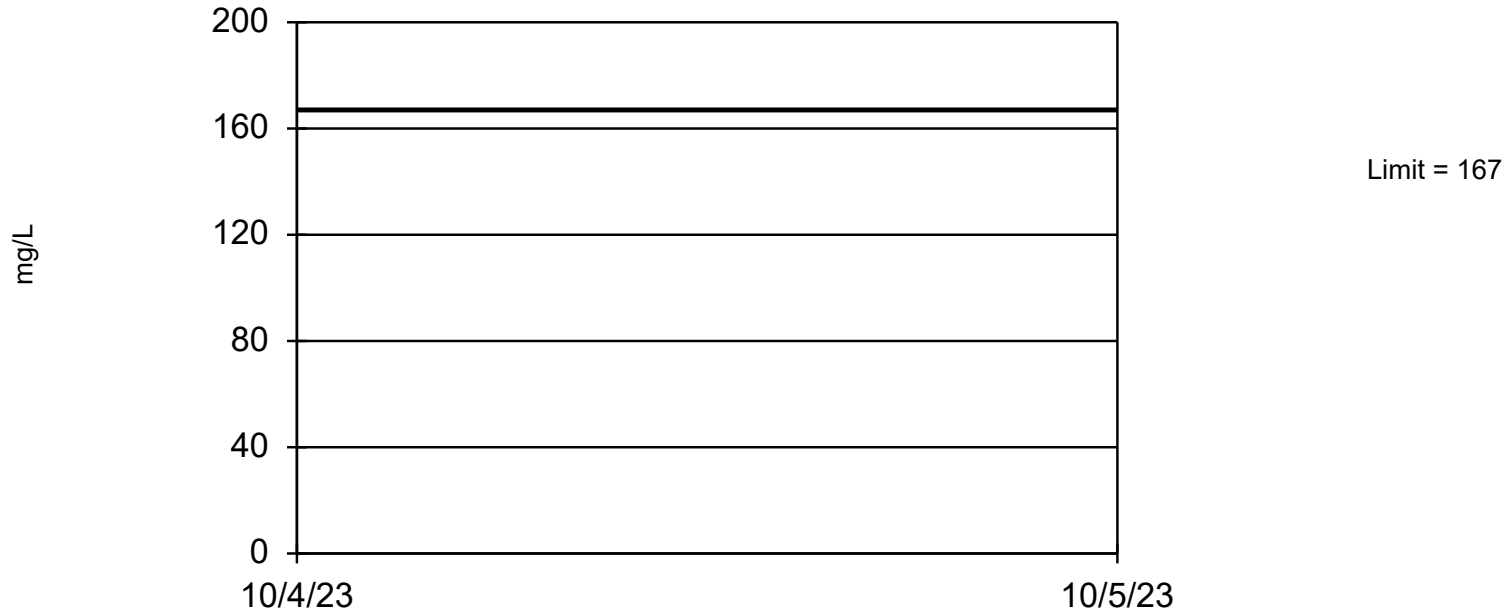
Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 7/31/2024 6:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	166	200
6/7/2016	181	164
8/16/2016	140	158
10/3/2016	167	150
1/9/2017	145	164
4/4/2017	180	176
6/12/2017	116	158
8/16/2017	139	139
10/16/2017	105	145
5/8/2018	104	173
8/14/2018	102	156
10/10/2018	107	130
4/4/2019	120	200
10/11/2019	120	150
6/2/2020	130	190
10/14/2020	92	140
4/19/2021	190	98
10/12/2021	84	160
4/4/2022	80	160
4/27/2023	120	160
8/3/2023	170	160
10/5/2023	100	130

Chloride

Interwell Parametric



Background Data Summary: Mean=72.91, Std. Dev.=46.43, n=44. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9386, critical = 0.924. Kappa = 2.026 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0008358. Assumes 9 future values.

Prediction Limit Analysis Run 7/31/2024 6:53 PM View: Default

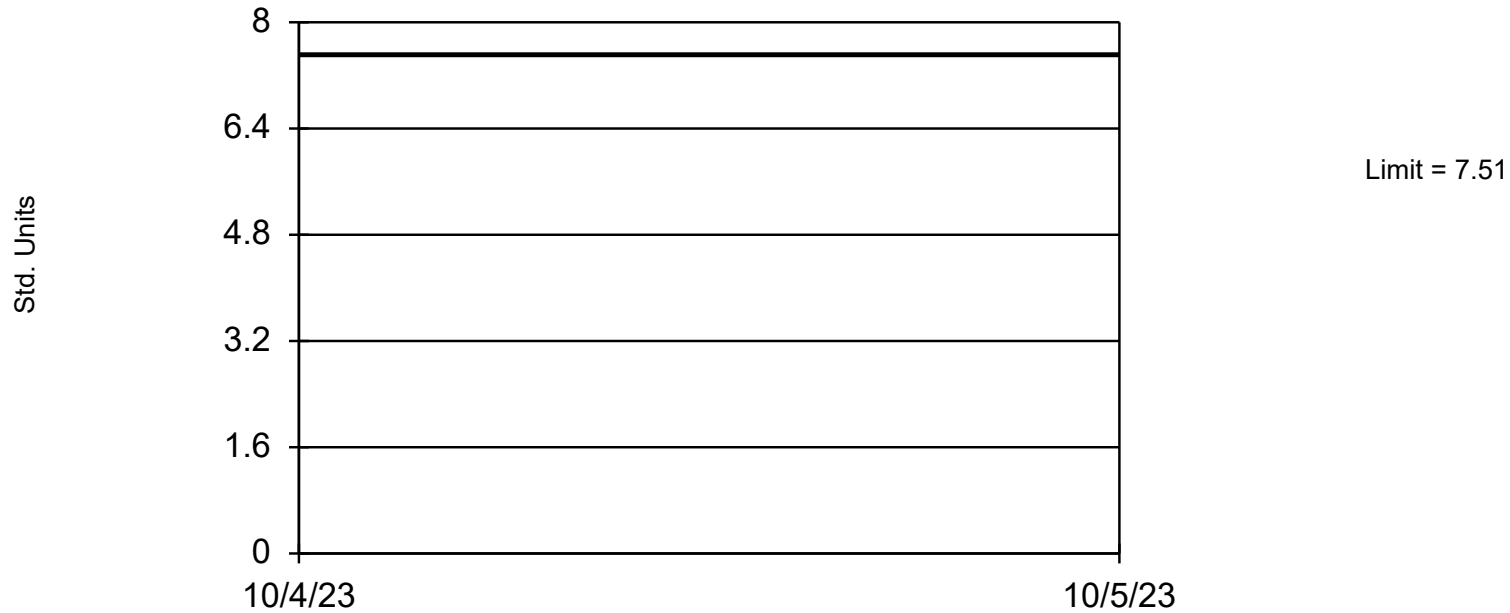
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 7/31/2024 6:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	154	125
6/7/2016	196	75.4
8/16/2016	96.9	77.4
10/3/2016	143	62.7
1/9/2017	113	78.7
4/4/2017	187	83.3
6/12/2017	94.7	81.1
8/16/2017	121	45
10/16/2017	38.3	50.9
5/8/2018	24.4	79.9
8/14/2018	33.8	69.9
10/10/2018	67.1	54
4/4/2019	88	110
10/11/2019	59	65
6/2/2020	87	120
10/14/2020	17	61
4/19/2021	16	100
10/12/2021	14	110
4/4/2022	10	85
4/27/2023	9.7	23
8/3/2023	17	31
10/5/2023	12	21

Field pH Interwell Parametric



Background Data Summary: Mean=7.177, Std. Dev.=0.1637, n=45. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9551, critical = 0.926. Kappa = 2.023 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0008358. Assumes 9 future values.

Prediction Limit Analysis Run 7/31/2024 6:53 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Prediction Limit

Constituent: Field pH (Std. Units) Analysis Run 7/31/2024 6:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	7.1	7
6/7/2016	7	7.2
8/16/2016	7	7.1
10/3/2016	7.2	7.2
1/9/2017	7.2	7.5
4/4/2017	7.5	7.51
6/12/2017	7.3	7.3
8/16/2017	7.1	7.2
10/16/2017	7.1	7.4
5/8/2018	7.4	7.4
8/14/2018	7.3	7.2
10/10/2018	7.1	7.1
4/4/2019	7	7
10/11/2019	7.2	7.2
6/2/2020	7.1	7
10/14/2020	7.34	7.41
3/1/2021		6.99
4/19/2021	7.21	7.16
10/12/2021	7.22	7.17
4/4/2022	7.38	7.22
4/27/2023	7.13	6.83
8/3/2023	7.1	6.95
10/5/2023	7.01	6.93

Fluoride

Interwell Parametric



Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-1.228, Std. Dev.=0.2893, n=44, 25% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.934, critical = 0.924. Kappa = 2.026 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0008358. Assumes 9 future values.

Prediction Limit Analysis Run 7/31/2024 6:53 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

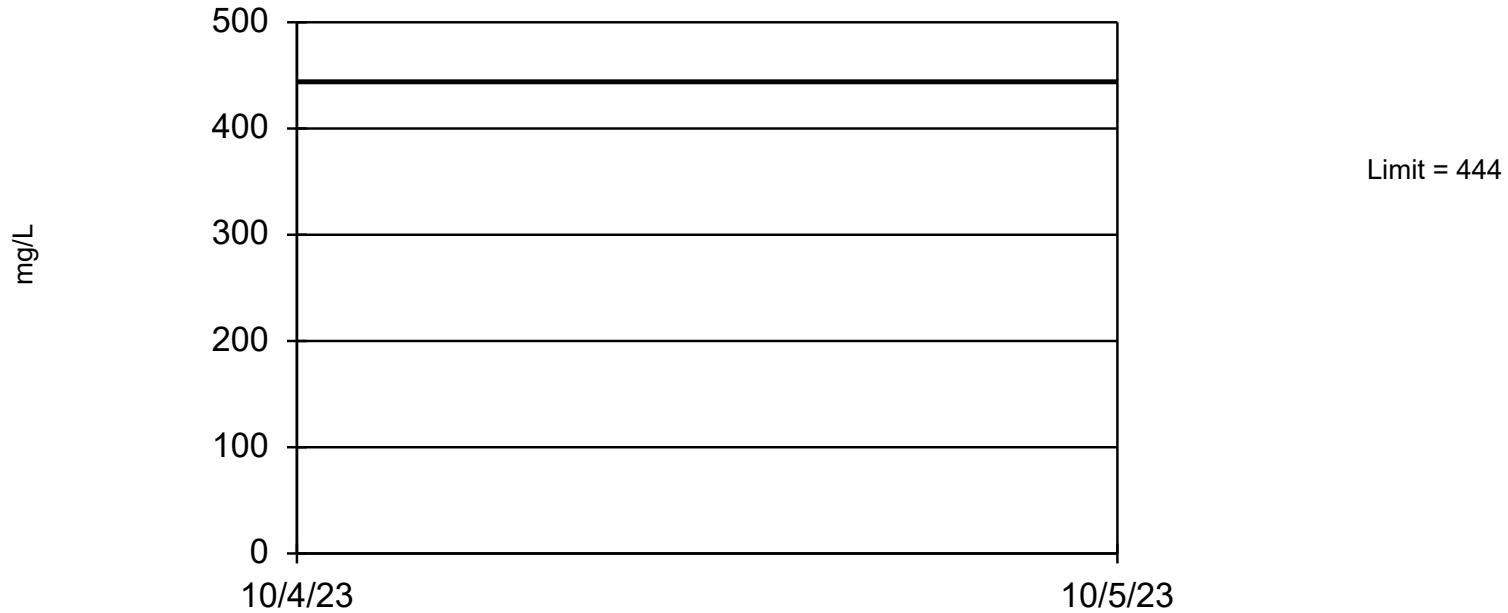
Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/31/2024 6:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	0.39	0.38
6/7/2016	0.28	0.27
8/16/2016	0.29	0.28
10/3/2016	0.34	0.35
1/9/2017	0.33	0.32
4/4/2017	0.26	0.27
6/12/2017	0.32	0.36
8/16/2017	0.32	0.36
10/16/2017	0.39	0.36
5/8/2018	0.33	0.31
8/14/2018	0.39	0.36
10/10/2018	0.4	0.35
4/4/2019	0.55	0.41 (J)
10/11/2019	0.34 (J)	0.37 (J)
6/2/2020	0.65	0.64
10/14/2020	<0.23 (U)	<0.23 (U)
4/19/2021	0.37 (J)	<0.28 (U)
10/12/2021	<0.28 (U)	<0.28 (U)
4/4/2022	<0.22 (U)	<0.22 (U)
4/27/2023	0.39 (J)	0.45 (J)
8/3/2023	<0.38 (U)	<0.38 (U)
10/5/2023	<0.38 (U)	<0.38 (U)

Sulfate

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=4.53, Std. Dev.=0.7686, n=41. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9246, critical = 0.92. Kappa = 2.036 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0008358. Assumes 9 future values.

Prediction Limit Analysis Run 7/31/2024 6:53 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

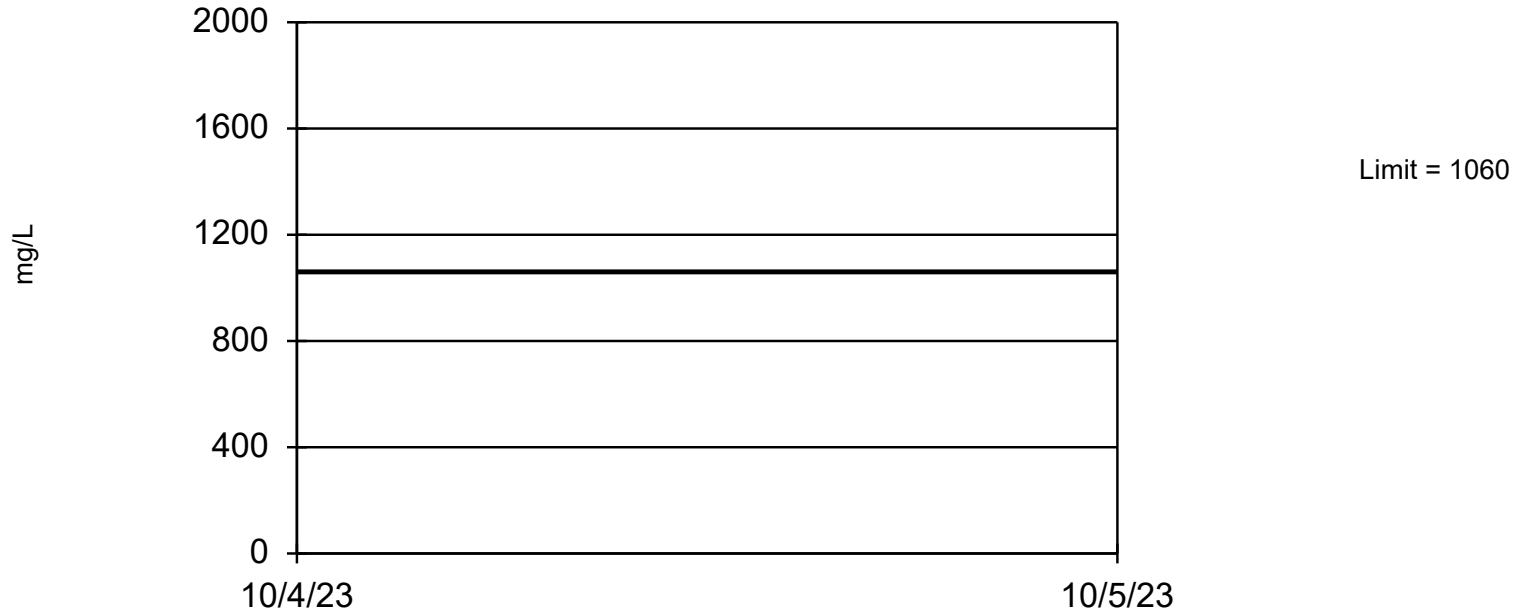
Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/31/2024 6:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	53.1	283
6/7/2016	47.7	179
8/16/2016	54	170
10/3/2016	62.6	161
1/9/2017	48.5	179
4/4/2017	34.3	184
6/12/2017	101	173
8/16/2017	41.3	112
10/16/2017	35.1	119
5/8/2018	28.8	176
8/14/2018	27.2	144
10/10/2018	37.9	127
4/4/2019	21	230
10/11/2019	51	130
6/2/2020	100	220
10/14/2020	19	110
4/19/2021	55	200
10/12/2021	55	190
4/4/2022	74	170
4/27/2023	340 (X)	290
8/3/2023	340 (X)	240
10/5/2023	210 (X)	150

Total Dissolved Solids

Interwell Parametric



Background Data Summary: Mean=679, Std. Dev.=186, n=44. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9801, critical = 0.924. Kappa = 2.026 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0008358. Assumes 9 future values.

Prediction Limit Analysis Run 7/31/2024 6:53 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 7/31/2024 6:54 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	879	1060
6/7/2016	1040	843
8/16/2016	703	799
10/3/2016	743	694
1/9/2017	653	776
4/4/2017	853	808
6/12/2017	625	803
8/16/2017	760	623
10/16/2017	445	615
5/8/2018	462	864
8/14/2018	472	777
10/10/2018	512	678
4/4/2019	600	980
10/11/2019	410	590
6/2/2020	590	950
10/14/2020	390	640
4/19/2021	370	870
10/12/2021	280	750
4/4/2022	320	750
4/27/2023	580	750
8/3/2023	730	720
10/5/2023	560	560

Attachment 5

Interwell Tolerance Limit Analysis

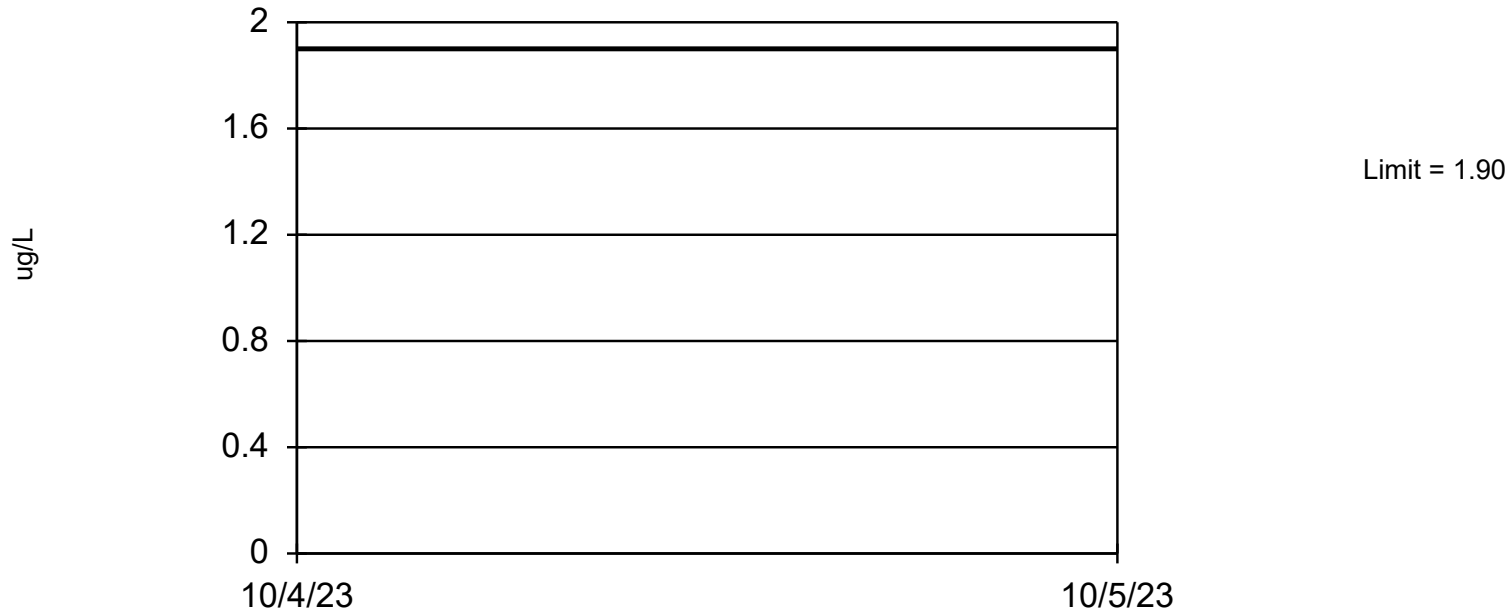
Tolerance Limit

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 7/31/2024, 6:46 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Wells</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (ug/L)	n/a	1.90	n/a	n/a	n/a	42	MW-310,MW-311	76.19	n/a	n/a	0.116	NP Inter(NDs)
Arsenic (ug/L)	n/a	79.8	n/a	n/a	n/a	40	MW-310,MW-311	0	n/a	n/a	0.1285	NP Inter(normal...
Barium (ug/L)	n/a	829	n/a	n/a	n/a	42	MW-310,MW-311	0	n/a	n/a	0.116	NP Inter(normal...
Beryllium (ug/L)	n/a	0.330	n/a	n/a	n/a	42	MW-310,MW-311	92.86	n/a	n/a	0.116	NP Inter(NDs)
Cadmium (ug/L)	n/a	0.100	n/a	n/a	n/a	42	MW-310,MW-311	97.62	n/a	n/a	0.116	NP Inter(NDs)
Chromium (ug/L)	n/a	1.10	n/a	n/a	n/a	42	MW-310,MW-311	57.14	n/a	n/a	0.116	NP Inter(NDs)
Cobalt (ug/L)	n/a	3.80	n/a	n/a	n/a	42	MW-310,MW-311	9.524	n/a	n/a	0.116	NP Inter(normal...
Fluoride (mg/L)	n/a	0.537	n/a	n/a	n/a	44	MW-310,MW-311	25	Kapla...	ln(x)	0.05	Inter
Lead (ug/L)	n/a	1.10	n/a	n/a	n/a	42	MW-310,MW-311	71.43	n/a	n/a	0.116	NP Inter(NDs)
Lithium (ug/L)	n/a	9.80	n/a	n/a	n/a	42	MW-310,MW-311	92.86	n/a	n/a	0.116	NP Inter(NDs)
Mercury (ug/L)	n/a	0.150	n/a	n/a	n/a	36	MW-310,MW-311	97.22	n/a	n/a	0.1578	NP Inter(NDs)
Molybdenum (ug/L)	n/a	23.5	n/a	n/a	n/a	40	MW-310,MW-311	0	None	ln(x)	0.05	Inter
Selenium (ug/L)	n/a	1.40	n/a	n/a	n/a	42	MW-310,MW-311	69.05	n/a	n/a	0.116	NP Inter(NDs)
Thallium (ug/L)	n/a	0.500	n/a	n/a	n/a	36	MW-310,MW-311	94.44	n/a	n/a	0.1578	NP Inter(NDs)
Total Radium (pCi/L)	n/a	3.53	n/a	n/a	n/a	40	MW-310,MW-311	0	None	ln(x)	0.05	Inter

Antimony

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 42 background values. 76.19% NDs. 89.65% coverage at alpha=0.01; 93.16% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.116.

Tolerance Limit Analysis Run 7/31/2024 6:43 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Tolerance Limit

Constituent: Antimony (ug/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.058 (U)	<0.058 (U)
6/7/2016	0.12 (J)	0.12 (J)
8/16/2016	<0.058 (U)	<0.058 (U)
10/3/2016	0.099 (J)	0.084 (J)
1/9/2017	<0.058 (U)	<0.058 (U)
4/4/2017	0.032 (J)	<0.026 (U)
6/12/2017	0.048 (J)	0.03 (J)
8/16/2017	0.1 (J)	0.057 (J)
5/8/2018	<0.026 (U)	<0.026 (U)
8/14/2018	<0.15 (U)	<0.15 (U)
10/10/2018	<0.078 (U)	<0.078 (U)
4/4/2019	<0.53 (U)	<0.53 (U)
10/11/2019	<0.53 (U)	<0.53 (U)
6/2/2020	<0.58 (U)	<0.58 (U)
10/14/2020	1.9	<0.51 (U)
4/19/2021	<1.1 (U)	<1.1 (U)
10/12/2021	<1.1 (U)	<1.1 (U)
4/4/2022	<0.69 (U)	<0.69 (U)
4/27/2023	<1 (U)	<1 (U)
8/3/2023	<1 (U)	<1 (U)
10/5/2023	<1 (U)	<1 (U)

Arsenic

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 40 background values. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Tolerance Limit Analysis Run 7/31/2024 6:43 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Tolerance Limit

Constituent: Arsenic (ug/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	60.6	17.7
6/7/2016	60.2	12.4
8/16/2016	64.1	16.4
10/3/2016	74	13
1/9/2017	72.6	17.6
4/4/2017	79.8	17.1
6/12/2017	64	15.2
8/16/2017	68.2	11.6
5/8/2018	57.8	14
8/14/2018	56.2	15.7
10/10/2018	62.1	15.2
4/4/2019	65	19
10/11/2019	61	18
6/2/2020	55	19
10/14/2020	63	15
4/19/2021	16 (X)	55 (X)
10/12/2021	63	22
4/4/2022	52	19
4/27/2023	32	4.7
8/3/2023	47	5.3
10/5/2023	45	5.5

Barium

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 42 background values. 89.65% coverage at alpha=0.01; 93.16% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.116.

Tolerance Limit Analysis Run 7/31/2024 6:43 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

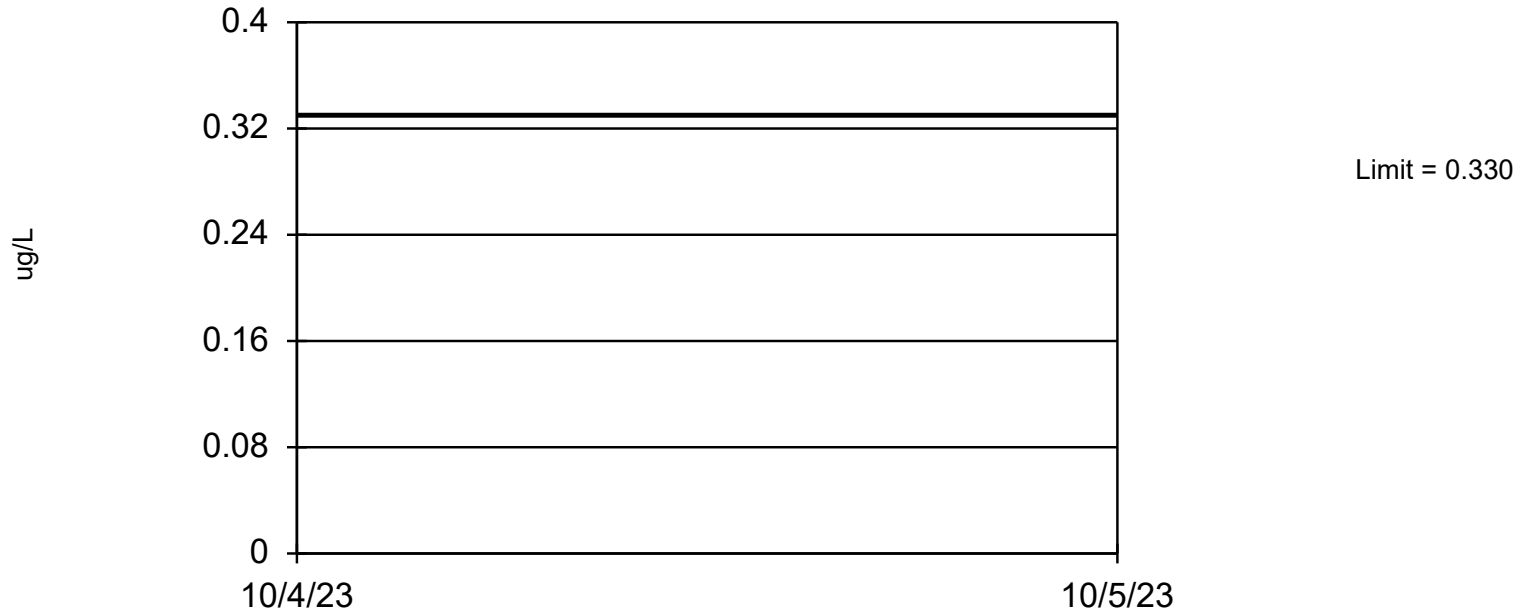
Tolerance Limit

Constituent: Barium (ug/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	813	292
6/7/2016	829	248
8/16/2016	589	232
10/3/2016	734	229
1/9/2017	605	244
4/4/2017	825	240
6/12/2017	586	248
8/16/2017	665	198
5/8/2018	403	256
8/14/2018	398	239
10/10/2018	450	214
4/4/2019	560	280
10/11/2019	500	210
6/2/2020	550	300
10/14/2020	400	220
4/19/2021	280	370
10/12/2021	290	230
4/4/2022	270	220
4/27/2023	330	220
8/3/2023	410	230
10/5/2023	360	160

Beryllium

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 42 background values. 92.86% NDs. 89.65% coverage at alpha=0.01; 93.16% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.116.

Tolerance Limit Analysis Run 7/31/2024 6:43 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Tolerance Limit

Constituent: Beryllium (ug/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.08 (U)	<0.08 (U)
6/7/2016	<0.08 (U)	<0.08 (U)
8/16/2016	<0.08 (U)	<0.08 (U)
10/3/2016	<0.08 (U)	<0.08 (U)
1/9/2017	<0.08 (U)	<0.08 (U)
4/4/2017	0.019 (J)	0.036 (J)
6/12/2017	<0.012 (U)	0.013 (J)
8/16/2017	<0.012 (U)	<0.012 (U)
5/8/2018	<0.012 (U)	<0.023 (U)
8/14/2018	<0.12 (U)	<0.12 (U)
10/10/2018	<0.089 (U)	<0.089 (U)
4/4/2019	<0.27 (U)	<0.27 (U)
10/11/2019	<0.27 (U)	<0.27 (U)
6/2/2020	<0.27 (U)	<0.27 (U)
10/14/2020	<0.27 (U)	<0.27 (U)
4/19/2021	<0.27 (U)	<0.27 (U)
10/12/2021	<0.27 (U)	<0.27 (U)
4/4/2022	<0.27 (U)	<0.27 (U)
4/27/2023	<0.33 (U)	<0.33 (U)
8/3/2023	<0.33 (U)	<0.33 (U)
10/5/2023	<0.33 (U)	<0.33 (U)

Cadmium

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 42 background values. 97.62% NDs. 89.65% coverage at alpha=0.01; 93.16% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.116.

Tolerance Limit Analysis Run 7/31/2024 6:43 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

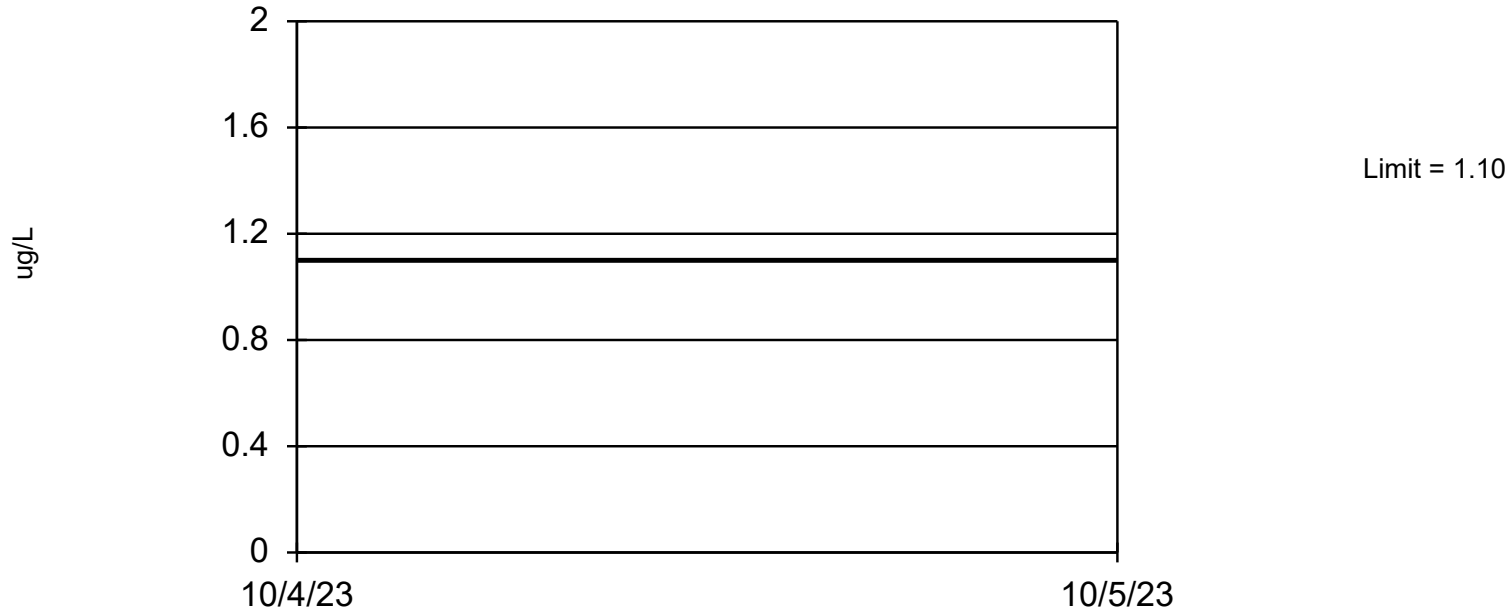
Tolerance Limit

Constituent: Cadmium (ug/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.029 (U)	<0.029 (U)
6/7/2016	<0.029 (U)	<0.029 (U)
8/16/2016	<0.029 (U)	<0.029 (U)
10/3/2016	<0.029 (U)	<0.029 (U)
1/9/2017	<0.029 (U)	<0.029 (U)
4/4/2017	<0.018 (U)	<0.018 (U)
6/12/2017	0.025 (J)	<0.018 (U)
8/16/2017	<0.018 (U)	<0.018 (U)
5/8/2018	<0.018 (U)	<0.018 (U)
8/14/2018	<0.07 (U)	<0.07 (U)
10/10/2018	<0.033 (U)	<0.033 (U)
4/4/2019	<0.077 (U)	<0.077 (U)
10/11/2019	<0.039 (U)	<0.039 (U)
6/2/2020	<0.039 (U)	<0.039 (U)
10/14/2020	<0.049 (U)	<0.049 (U)
4/19/2021	<0.051 (U)	<0.051 (U)
10/12/2021	<0.051 (U)	<0.051 (U)
4/4/2022	<0.055 (U)	<0.055 (U)
4/27/2023	<0.1 (U)	<0.1 (U)
8/3/2023	<0.1 (U)	<0.1 (U)
10/5/2023	<0.1 (U)	<0.1 (U)

Chromium

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 42 background values. 57.14% NDs. 89.65% coverage at alpha=0.01; 93.16% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.116.

Tolerance Limit Analysis Run 7/31/2024 6:43 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

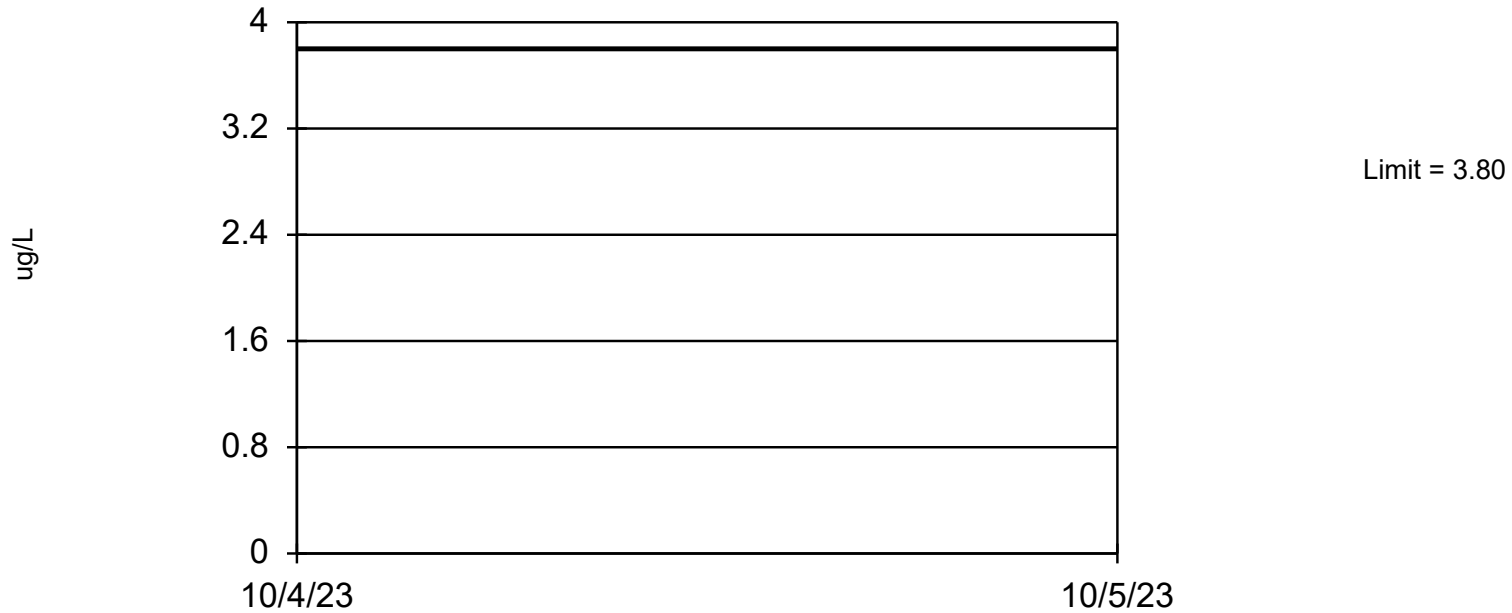
Tolerance Limit

Constituent: Chromium (ug/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.34 (U)	0.45 (J)
6/7/2016	<0.34 (U)	0.42 (J)
8/16/2016	0.85 (J)	0.51 (J)
10/3/2016	0.5 (J)	<0.34 (U)
1/9/2017	0.45 (J)	0.35 (J)
4/4/2017	0.19 (J)	0.18 (J)
6/12/2017	0.2 (J)	0.14 (J)
8/16/2017	0.52 (J)	0.32 (J)
5/8/2018	0.16 (J)	0.2 (J)
8/14/2018	<0.19 (U)	0.22 (J)
10/10/2018	0.082 (J)	0.78 (J)
4/4/2019	<0.98 (U)	<0.98 (U)
10/11/2019	<0.98 (U)	<0.98 (U)
6/2/2020	<1.1 (U)	<1.1 (U)
10/14/2020	<1.1 (U)	<1.1 (U)
4/19/2021	<1.1 (U)	<1.1 (U)
10/12/2021	<1.1 (U)	<1.1 (U)
4/4/2022	<1.1 (U)	<1.1 (U)
4/27/2023	<1.1 (U)	<1.1 (U)
8/3/2023	<1.1 (U)	<1.1 (U)
10/5/2023	<1.1 (U)	<1.1 (U)

Cobalt

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 42 background values. 9.524% NDs. 89.65% coverage at alpha=0.01; 93.16% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.116.

Tolerance Limit Analysis Run 7/31/2024 6:43 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

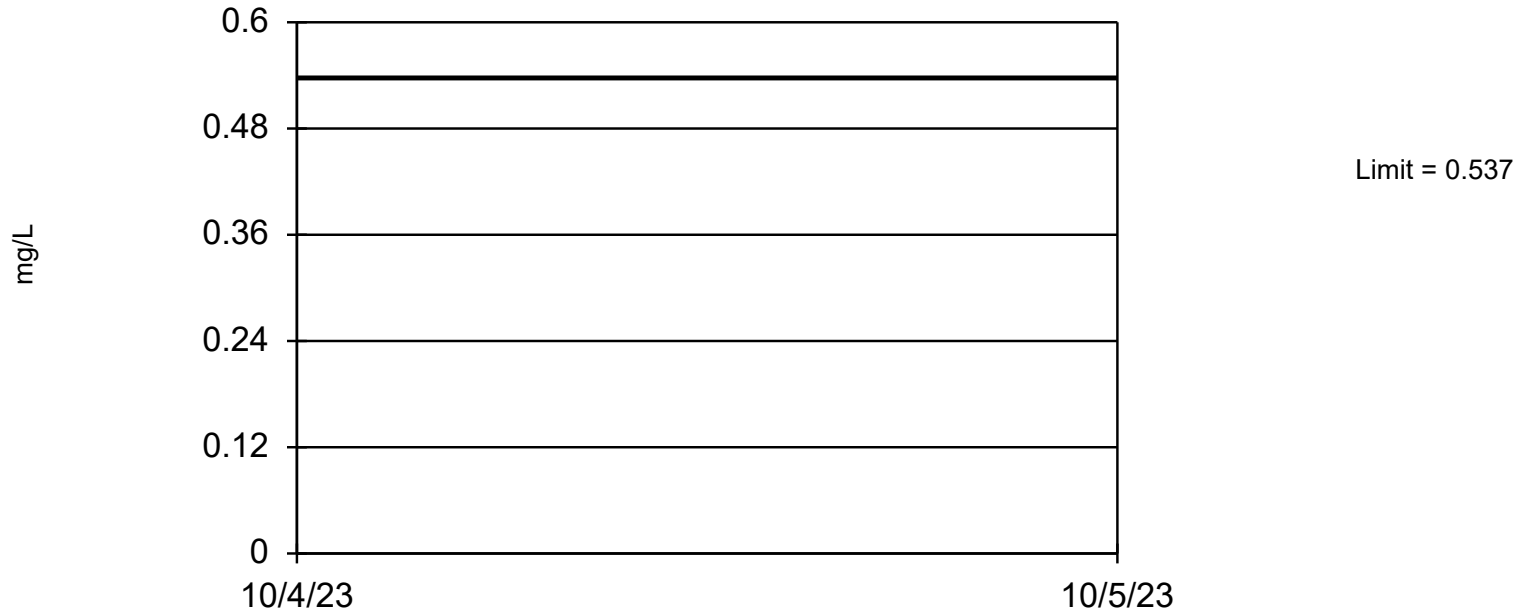
Tolerance Limit

Constituent: Cobalt (ug/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	2.6	0.52 (J)
6/7/2016	2.7	<0.5 (U)
8/16/2016	1.8	<0.5 (U)
10/3/2016	2	<0.5 (U)
1/9/2017	1.6	<0.5 (U)
4/4/2017	1.9	0.27 (J)
6/12/2017	1.4	0.35 (J)
8/16/2017	1.8	0.24 (J)
5/8/2018	1.2	0.3 (J)
8/14/2018	1.4	0.37 (J)
10/10/2018	1.4	0.57 (J)
4/4/2019	1.9	0.45 (J)
10/11/2019	1.9	0.27 (J)
6/2/2020	2.3	0.81
10/14/2020	1.5	0.28 (J)
4/19/2021	0.29 (J)	1.4
10/12/2021	1.4	0.31 (J)
4/4/2022	1.2	0.3 (J)
4/27/2023	3.1	3.8
8/3/2023	3.8	1.5
10/5/2023	2.4	0.89

Fluoride

Interwell Parametric



95% coverage. Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-1.228, Std. Dev.=0.2893, n=44, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.934, critical = 0.924. Report alpha = 0.05.

Tolerance Limit Analysis Run 7/31/2024 6:43 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

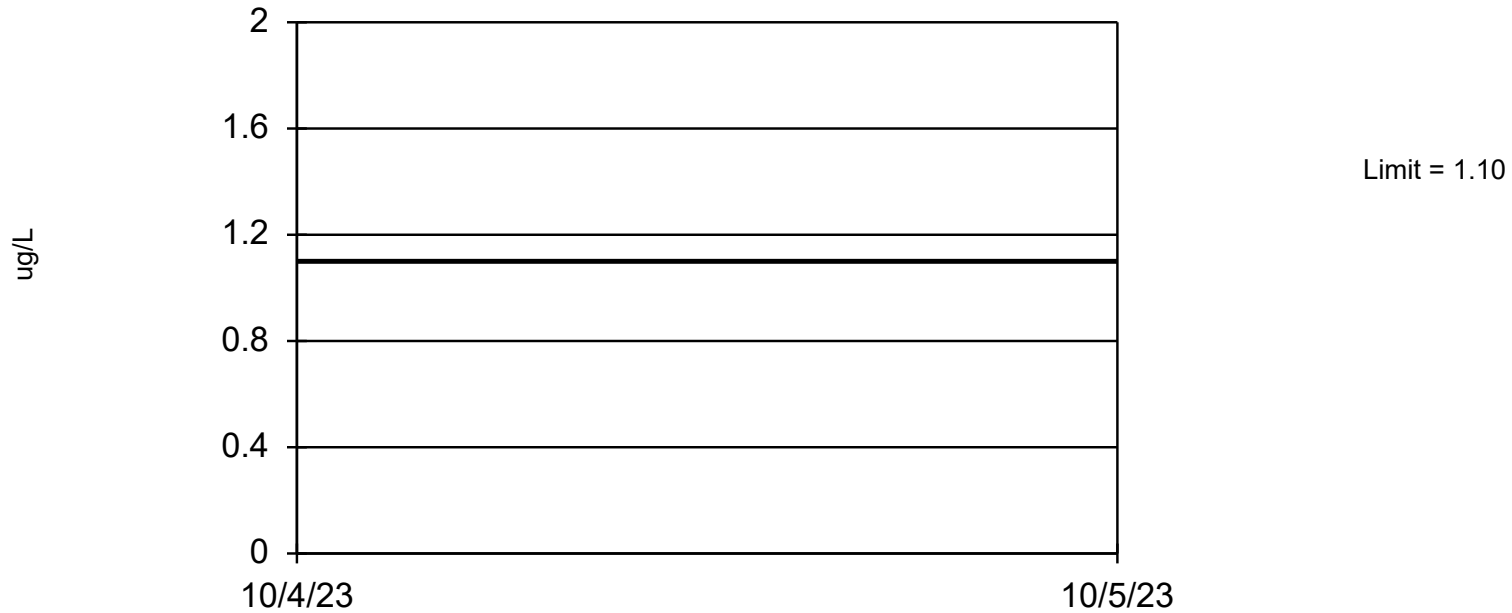
Tolerance Limit

Constituent: Fluoride (mg/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	0.39	0.38
6/7/2016	0.28	0.27
8/16/2016	0.29	0.28
10/3/2016	0.34	0.35
1/9/2017	0.33	0.32
4/4/2017	0.26	0.27
6/12/2017	0.32	0.36
8/16/2017	0.32	0.36
10/16/2017	0.39	0.36
5/8/2018	0.33	0.31
8/14/2018	0.39	0.36
10/10/2018	0.4	0.35
4/4/2019	0.55	0.41 (J)
10/11/2019	0.34 (J)	0.37 (J)
6/2/2020	0.65	0.64
10/14/2020	<0.23 (U)	<0.23 (U)
4/19/2021	0.37 (J)	<0.28 (U)
10/12/2021	<0.28 (U)	<0.28 (U)
4/4/2022	<0.22 (U)	<0.22 (U)
4/27/2023	0.39 (J)	0.45 (J)
8/3/2023	<0.38 (U)	<0.38 (U)
10/5/2023	<0.38 (U)	<0.38 (U)

Lead

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 42 background values. 71.43% NDs. 89.65% coverage at alpha=0.01; 93.16% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.116.

Tolerance Limit Analysis Run 7/31/2024 6:43 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

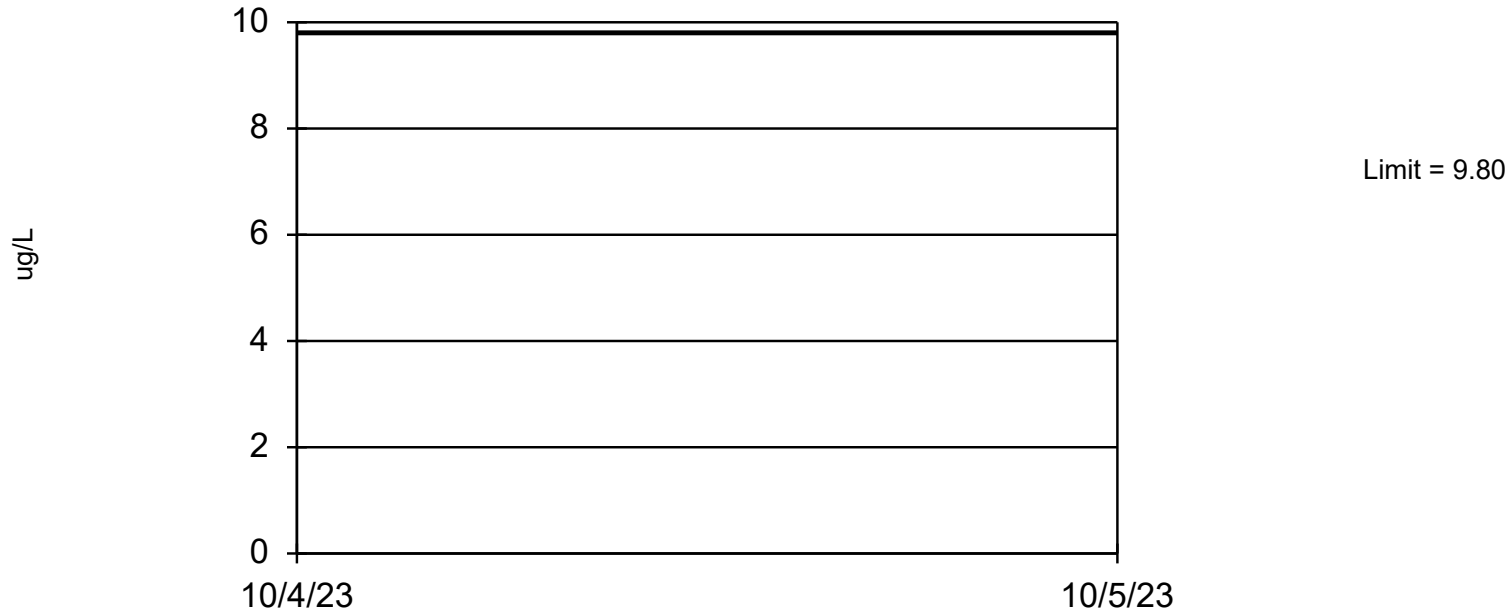
Tolerance Limit

Constituent: Lead (ug/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.19 (U)	0.2 (J)
6/7/2016	<0.19 (U)	<0.19 (U)
8/16/2016	<0.19 (U)	<0.19 (U)
10/3/2016	<0.19 (U)	<0.19 (U)
1/9/2017	<0.19 (U)	<0.19 (U)
4/4/2017	<0.033 (U)	<0.033 (U)
6/12/2017	0.081 (J)	0.32 (J)
8/16/2017	0.64 (J)	0.096 (J)
5/8/2018	0.044 (J)	0.043 (J)
8/14/2018	<0.12 (U)	0.13 (J)
10/10/2018	<0.13 (U)	0.48 (J)
4/4/2019	<0.27 (U)	0.37 (J)
10/11/2019	<0.27 (U)	<0.27 (U)
6/2/2020	<0.27 (U)	1.1
10/14/2020	<0.11 (U)	<0.11 (U)
4/19/2021	<0.21 (U)	<0.21 (U)
10/12/2021	<0.21 (U)	<0.21 (U)
4/4/2022	<0.24 (U)	<0.24 (U)
4/27/2023	<0.24 (U)	<0.24 (U)
8/3/2023	<0.24 (U)	0.4 (J)
10/5/2023	<0.24 (U)	<0.24 (U)

Lithium

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 42 background values. 92.86% NDs. 89.65% coverage at alpha=0.01; 93.16% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.116.

Tolerance Limit Analysis Run 7/31/2024 6:43 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

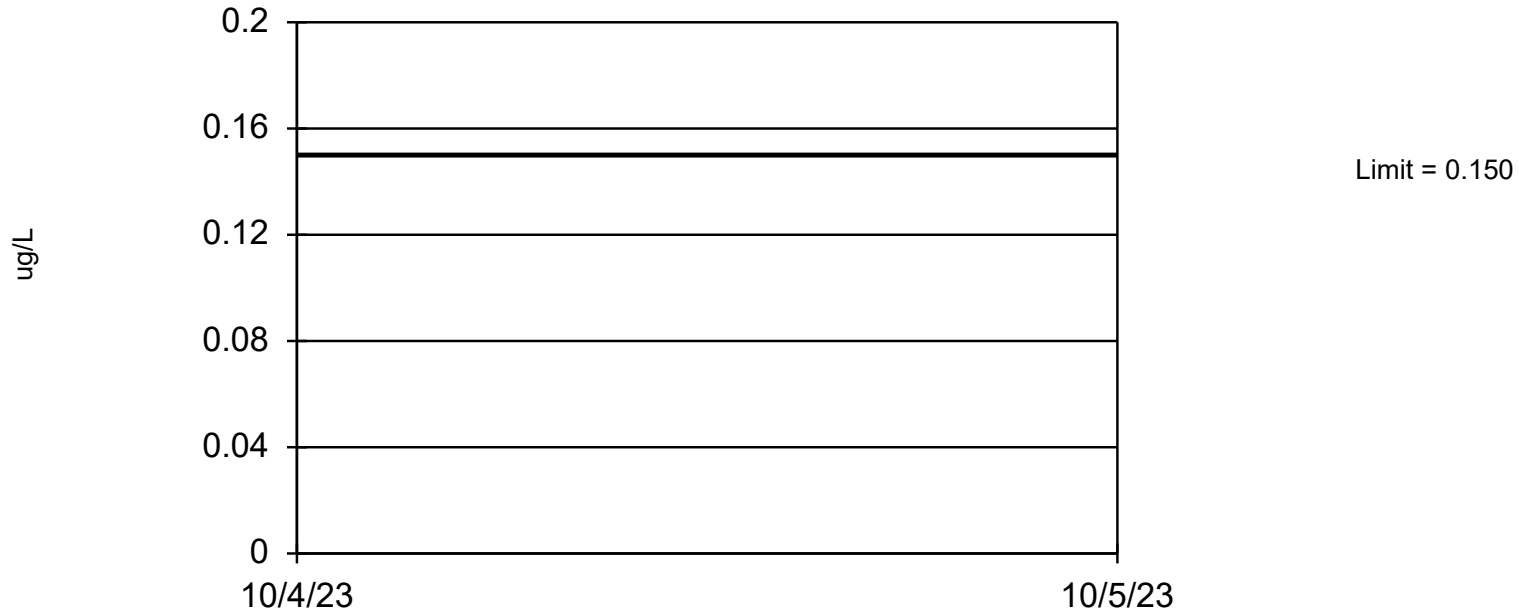
Tolerance Limit

Constituent: Lithium (ug/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<4.9 (U)	<4.9 (U)
6/7/2016	<4.9 (U)	<4.9 (U)
8/16/2016	<9.8 (U)	<9.8 (U)
10/3/2016	<4.9 (U)	<4.9 (U)
1/9/2017	<4.9 (U)	<4.9 (U)
4/4/2017	<2.9 (U)	<2.9 (U)
6/12/2017	<2.9 (U)	<2.9 (U)
8/16/2017	7.7 (J)	3.3 (J)
5/8/2018	<4.6 (U)	<4.6 (U)
8/14/2018	5.3 (J)	<4.6 (U)
10/10/2018	<4.6 (U)	<4.6 (U)
4/4/2019	<2.7 (U)	<2.7 (U)
10/11/2019	<2.7 (U)	<2.7 (U)
6/2/2020	<2.3 (U)	<2.3 (U)
10/14/2020	<2.5 (U)	<2.5 (U)
4/19/2021	<2.5 (U)	<2.5 (U)
10/12/2021	<2.5 (U)	<2.5 (U)
4/4/2022	<2.5 (U)	<2.5 (U)
4/27/2023	<2.5 (U)	<2.5 (U)
8/3/2023	<2.5 (U)	<2.5 (U)
10/5/2023	<2.5 (U)	<2.5 (U)

Mercury

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Tolerance Limit Analysis Run 7/31/2024 6:43 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Tolerance Limit

Constituent: Mercury (ug/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.046 (U)	<0.046 (U)
6/7/2016	<0.039 (U)	<0.039 (U)
8/16/2016	<0.039 (U)	<0.039 (U)
10/3/2016	<0.039 (U)	<0.039 (U)
1/9/2017	<0.055 (U)	<0.055 (U)
4/4/2017	<0.046 (U)	<0.046 (U)
6/12/2017	<0.046 (U)	<0.046 (U)
8/16/2017	<0.046 (U)	<0.046 (U)
5/8/2018	<0.09 (U)	<0.09 (U)
10/10/2018	<0.09 (U)	<0.09 (U)
4/4/2019	<0.1 (U)	<0.1 (U)
6/2/2020	<0.1 (U)	0.13 (J)
10/14/2020	<0.1 (U)	<0.1 (U)
4/19/2021	<0.15 (U)	<0.15 (U)
4/4/2022	<0.11 (U)	<0.11 (U)
4/27/2023	<0.14 (U)	<0.14 (U)
8/3/2023	<0.14 (U)	<0.14 (U)
10/5/2023	<0.14 (U)	<0.14 (U)

Molybdenum

Interwell Parametric



95% coverage. Background Data Summary (based on natural log transformation): Mean=1.891, Std. Dev.=0.5948, n=40. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9497, critical = 0.919. Report alpha = 0.05.

Tolerance Limit Analysis Run 7/31/2024 6:44 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

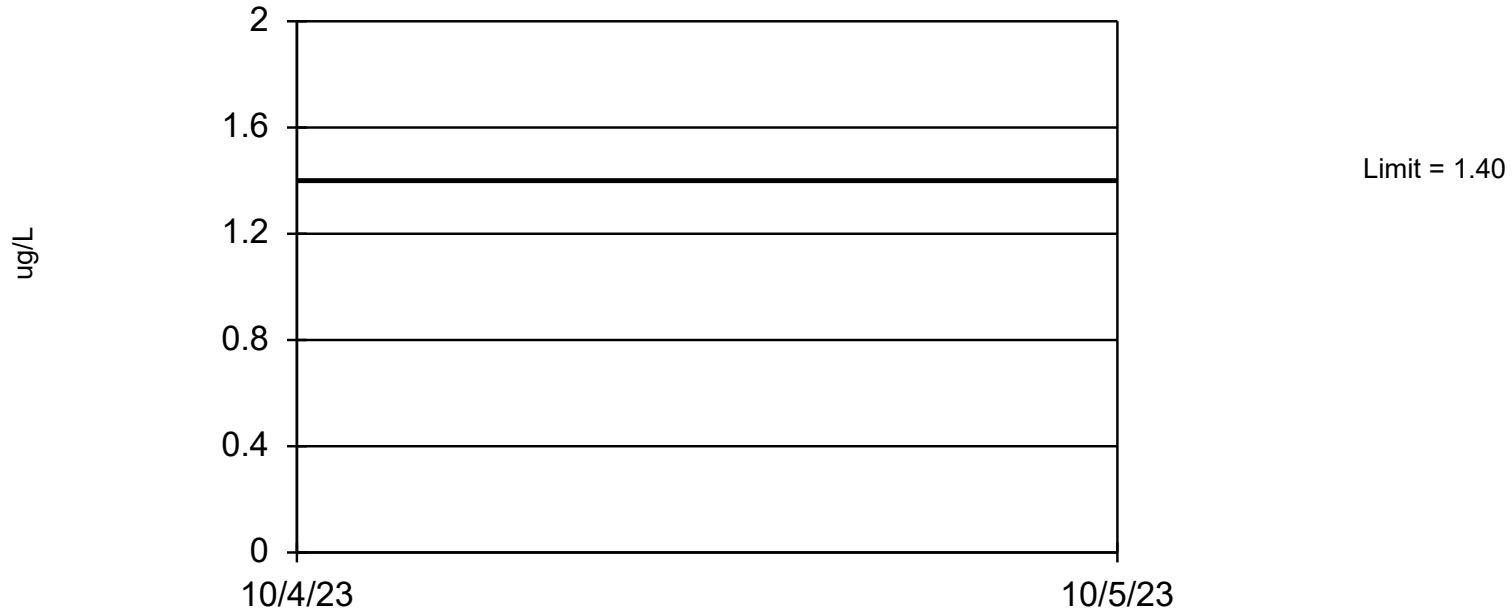
Tolerance Limit

Constituent: Molybdenum (ug/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	5.1	10.4
6/7/2016	3.9	11.7
8/16/2016	4.4	12.5
10/3/2016	4.8	14.7
1/9/2017	4.4	10.9
4/4/2017	3.4	12.4
6/12/2017	10 (X)	11.2
8/16/2017	4.1	16
5/8/2018	4.2	11.6
8/14/2018	4	13.9
10/10/2018	4.6	16.3
4/4/2019	5.2	8.5
10/11/2019	6	15
6/2/2020	5.8	11
10/14/2020	3.6	23
4/19/2021	14 (X)	4.1
10/12/2021	4.9	6.9
4/4/2022	5.2	8.9
4/27/2023	1.9 (J)	3.4
8/3/2023	2.7	5.6
10/5/2023	3.3	5.8

Selenium

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 42 background values. 69.05% NDs. 89.65% coverage at alpha=0.01; 93.16% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.116.

Tolerance Limit Analysis Run 7/31/2024 6:44 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Tolerance Limit

Constituent: Selenium (ug/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.18 (U)	0.19 (J)
6/7/2016	<0.18 (U)	<0.18 (U)
8/16/2016	<0.18 (U)	<0.18 (U)
10/3/2016	<0.18 (U)	<0.18 (U)
1/9/2017	<0.18 (U)	0.2 (J)
4/4/2017	0.24 (J)	0.17 (J)
6/12/2017	0.18 (J)	0.19 (J)
8/16/2017	0.2 (J)	0.12 (J)
5/8/2018	0.14 (J)	0.17 (J)
8/14/2018	<0.16 (U)	0.18 (J)
10/10/2018	0.19 (J)	0.23 (J)
4/4/2019	<1 (U)	<1 (U)
10/11/2019	<1 (U)	<1 (U)
6/2/2020	<1 (U)	<1 (U)
10/14/2020	<1 (U)	<1 (U)
4/19/2021	<0.96 (U)	<0.96 (U)
10/12/2021	<0.96 (U)	<0.96 (U)
4/4/2022	<0.96 (U)	<0.96 (U)
4/27/2023	<1.4 (U)	<1.4 (U)
8/3/2023	<1.4 (U)	<1.4 (U)
10/5/2023	<1.4 (U)	<1.4 (U)

Thallium

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 36 background values. 94.44% NDs. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Tolerance Limit Analysis Run 7/31/2024 6:44 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

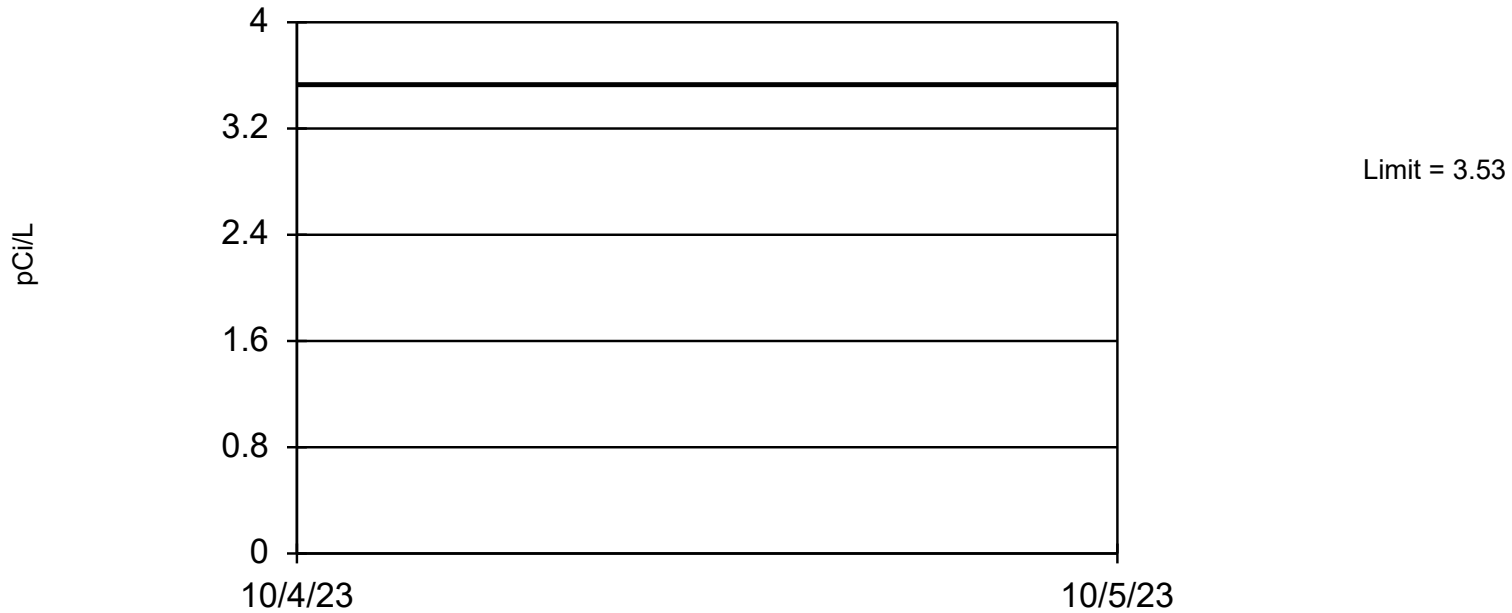
Tolerance Limit

Constituent: Thallium (ug/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	<0.5 (U)	<0.5 (U)
6/7/2016	<0.5 (U)	<0.5 (U)
8/16/2016	<0.5 (U)	<0.5 (U)
10/3/2016	<0.5 (U)	<0.5 (U)
1/9/2017	<0.5 (U)	<0.5 (U)
4/4/2017	<0.036 (U)	<0.036 (U)
6/12/2017	<0.036 (U)	<0.036 (U)
8/16/2017	0.35 (J)	0.14 (J)
5/8/2018	<0.036 (U)	<0.036 (U)
10/10/2018	<0.099 (U)	<0.099 (U)
4/4/2019	<0.27 (U)	<0.27 (U)
6/2/2020	<0.26 (U)	<0.26 (U)
4/19/2021	<0.26 (U)	<0.26 (U)
10/12/2021	<0.26 (U)	<0.26 (U)
4/4/2022	<0.26 (U)	<0.26 (U)
4/27/2023	<0.26 (U)	<0.26 (U)
8/3/2023	<0.26 (U)	<0.26 (U)
10/5/2023	<0.26 (U)	<0.26 (U)

Total Radium

Interwell Parametric



95% coverage. Background Data Summary (based on natural log transformation): Mean=-0.03453, Std. Dev.=0.609, n=40. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9563, critical = 0.919. Report alpha = 0.05.

Tolerance Limit Analysis Run 7/31/2024 6:44 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Tolerance Limit

Constituent: Total Radium (pCi/L) Analysis Run 7/31/2024 6:46 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-310 (bg)	MW-311 (bg)
4/21/2016	2.41	0.831
6/7/2016	1.28	1.22
8/16/2016	1.99	1.19
10/3/2016	1.34	0.22
1/9/2017	0.941	1.19
4/4/2017	3.17	1.13
6/12/2017	1.7	0.785
8/16/2017	2.21	1
5/8/2018	0.755	0.987
8/14/2018	1.55	0.969
10/10/2018	2.56	0.819
4/4/2019	1.19	0.815
10/11/2019	0.49	0.599
6/2/2020	0.844	0.802
10/14/2020	0.552	0.297
4/19/2021	0.869	0.52
10/12/2021	1.25	0.189
4/4/2022	0.838	0.593
4/27/2023	0.696	1.26
10/5/2023	2.17	1.3